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ART. I.—*Notes on Medical Matters in Paris.* By DAVID W. YANDELL, M.D., of Louisville, Ky.

After a sojourn of several weeks in the emporium of medical science I do not find myself in possession of a sufficient amount of professional matter to form a communication for the Journal such as I had hoped to make; but having come under a promise to furnish one for each number, the following is submitted, such as it is. I begin with a report of a clinical lecture on *Orchitis*, by Professor Velpeau, at the Charity Hospital.

Of the twenty-four examples of orchitis which you have seen in the hospital this year, said M. V., eighteen commenced in the urethra; the origin of the six others has remained doubtful. It is generally admitted that acute orchitis comprises two distinct varieties, the first of which has its origin in a lesion of the urethra; the second is produced by external vi-

olence. There is in our opinion a third class intermediate between the two others, if we may use the expression, which is not so generally recognized among practitioners. This variety arises neither from a lesion of the urethra, nor from any external violence, but it is caused, we believe, and the patients themselves sustain the opinion, by a violent effort or strain.

It is generally the case when a man laboring under orchitis presents himself to a surgeon, that he is immediately suspected of a blennorrhœa, and there is no credit given to his protestations that it has been produced by violent efforts. Nevertheless there is sometimes no trace of urethral discharge, nor any evidences of violence to the testicle; the epididymis is swollen, sensible and irregular; the tumefaction extends to the neighboring parts, and the patient cannot be made to confess any other cause than a violent effort.

It is now some years since, in examining the internal ring and the tissues concerned in its formation, we observed, as Thompson has asserted, that the right muscles give off many aponeurotic fibres which are attached to the internal face of the crest of the ilium. Those fibres form the inferior half of the orifice, and as a consequence pass under the testicular cord, or, to express ourselves in another way, and perhaps more clearly, the cord rides upon the fibres.

Now, keeping the disposition of the parts in mind, suppose the muscles to be in a state of contraction, those fibres must necessarily endeavor to straighten themselves, and if the effort is either considerable or long kept up, the cord must be compressed, and from this compression orchitis may ensue. Is it not highly probable then, that the urethra being in a state of irritation may predispose to orchitis; and a violent effort from the mechanism just pointed out produce it, in some cases at least?

Thus you will readily perceive that a man having a blennorrhœa is more disposed to contract orchitis than one whose urethra is in a state of health; but yet even in the absence of *ardor urinæ*, orchitis may occur under the influence of a violent muscular exertion. Formerly there was associated

with swelling of the epididymis and testicle the idea of a metastasis; it is still the opinion of some, that the inflammation spreads from the urethra to the testicle suddenly and without any continuity of tissue.

This theory is overthrown by watching the moment that orchitis most generally makes its appearance. If it were by metastasis that the inflammation invaded the testicle, it would most naturally occur when the urethral inflammation was highest. Every one knows that precisely the contrary is the case; that orchitis is observed when the blennorrhœa is on the decline, and the patient nearly recovered. Inflammation of the testicle is very rare in the beginning of the disease.

Between the two classes of orchitis of which we have spoken there are yet other differences. The orchitis produced by external violence may terminate in various ways, but there has been observed in them a strong tendency to bring about suppuration, whilst blennorrhagial orchitis seldom terminates in that way. Other things being equal, traumatic orchitis in general is more grave than urethral orchitis, for it is evident that in producing suppuration the chances are that it will destroy the testicle. Blennorrhagic orchitis, on the contrary, only leaves behind it a little induration of the epididymis, and its functions are left unimpaired. Orchitis arising from external violence may leave behind it indurations and lumps of matter, which after a time may give rise to different kinds of tumors.

The inflammation of the testicle arising from a violent effort is either cured very speedily, or it requires more time to be dispersed than either of the others.

As for urethral orchitis it must not be thought that the sole cause of its origin is to be found in the existence of a blennorrhœa. It may be a consequence of divers injuries in the canal itself, stone, disease of the prostate and tubercles. Those cases of orchitis which arise from the last of these causes most generally end in tubercular disorganization of the testicle. The ordinary orchitis cannot be considered as a very grave affection, lasting only fifteen or twenty days under most circumstances.

The various methods of treatment adopted by surgeons are antiphlogistics, compression, and punctures made by the lancet. The first of these means may be employed, and if leeches are applied, I should advise them to be placed along the course of the cord rather than on the testicle itself. Compression has been revived by M. Friki; but it is a difficult method and is not free from danger. The testicle may be compressed too forcibly by the bandages, and unpleasant consequences ensue. The punctures by means of a lancet we are in the habit of using, and they are both inoffensive and efficient. If there be any collection of fluid it is evacuated, and you need have no fear about the little operation which is less difficult and dangeroas than that of bleeding; for what can there be to apprehend? There is no vessel in this region capable of furnishing a dangerous or embarrassing hemorrhage. Do you fear that you may reach the testicle? That is scarcely probable; and should it occur, it cannot produce the great inconveniences which were at one time apprehended. Under this treatment the ordinary sojourn of the patients in the hospital is seven days and a half.

We will proceed to examine the two methods of cauterization and scarification, and by comparing them with that of dilatation, we shall gain a clear idea of the relative advantages of these three methods.

We would say that cauterization does not succeed by itself; it must be assisted by dilatation. It is clear that if it act upon the narrowed portion of the canal by a destruction of substance it would be more dangerous than useful; for the retraction which would follow the healing of the wound would leave the passage still more restricted. We consider that there is a great error committed in supposing that nitrate of silver, introduced into the urethra, will destroy the tissues with which it is brought for so short a time in contact, for if you will examine the effect which follows on the skin from a similar cauterization, you will find that it is most superficial, that no eschar results from the touch, and we have every reason to believe that similar results occur in cauterization of the

urethra. Therefore, by cauterization, thus employed, there is obtained, at best, but a mere modification of tissue, as is observed in some diseases of the skin, in certain cases of lichen, eczena, &c.; and if, concurrently with cauterization, dilatation were not employed, what power could it be supposed to exert upon the stricture? Here then, you see, is the reason why we employ only dilatation. If you have actually cauterized the urethra, you have performed a bad operation, because it is done at an expence of tissue; this is destroyed, and there will only follow a more decided stricture. If, on the other hand, only a slight modification of tissue is obtained, you have done no further good than dilatation would have effected had it been employed alone. Why, then, not trust to dilatation by itself? And, furthermore, we have not sufficiently thought, perhaps, that with bougies in the urethra a compression is produced which, of itself, acts upon the inflammation of the tissues. Among the other means employed in strictures, we may mention abrupt dilatation and scarifications. Abrupt dilatation is already nearly abandoned; it is understood to consist in passing a very large sound through a very small stricture. This is a most curious idea; nevertheless there is at the bottom of seemingly the merest paradoxes something which is true; and when such propositions are announced by men of such talent, as M. Mayor, it cannot be doubted that their authors have witnessed some cases to which the method is applicable; these cases, we suspect, are those in which you detect small valvular openings. It has been advised to dilate the urethra by an instrument which, penetrating at first in a reduced form, is capable after being introduced, of being enlarged. We cannot give our sanction to this method, though some surgeons have assured us that it is a good one. Scarifications or incisions have been, by turns, too much praised, and too much undervalued. In ordinary cases we do not believe that they possess any advantages over dilatation; but when the cicatrix is hard, as in ligneous strictures, (*coarctation ligneuses,*) this is a method which is sometimes employed. It is established, however, that in

thirty cases of stricture, you would not encounter more than three or four of this description. The partisans of scarification generalise the method, and believe it possesses advantages over other means; however, bear in mind that they associate with it dilatation. As for us, if we must sum up our opinion of the relative utility of each of the methods we have just spoken of, we should say, in the ordinary strictures from diffuse inflammation, and presenting a double cone, dilatation alone, or employed, if you wish, with cauterization by nitrate of silver, is the remedy; we reject caustic, potash, Vienna paste, &c.

In strictures which are very resisting, hard, woody, employ scarifications. In strictures consisting of thin bridles, and in valvular strictures, resort to the abrupt dilatation of M. Mayor. We look upon medicated bougies as entirely inefficient.

Such is an imperfect translation of a lecture of Professor Velpeau's, to which I listened with great interest, and which I hope will not be read without some satisfaction. I will conclude my present communication with a few items of medical and scientific news, which appear to me interesting.

M. Beneditti, an Italian physician, speaks very highly of the tannate of iron in chlorosis. He commences by administering nine grains, and increasing the dose gradually to thirty-six grains, in the twenty-four hours. In plethoric and very robust individuals he uses larger doses.

Dr. Guépratte has proposed a method for preparing the moxa which seems to possess some advantages over the ordinary processes. Instead of paper or carded cotton, he employs calico which has been freed from its starch. This he saturates with a solution of the sub acetate of lead, and dries and rolls it into cylinders of the requisite size. Upon the part where he designs applying the moxa he drops a very small quantity of a solution of gum Arabic, which assists to keep the moxa in its place. The moxa made in this way, he says, ignites readily and burns regularly, without odor,

smoke, or flame. The operation is more prompt, less difficult, and less painful than when the moxa of carded cotton is used.

For a number of years Dr. Gower has been in the habit of employing, with great success, topical applications of the infusion and alcoholic tincture of tobacco in prosopalgia, and he was not sure whether it acted as an excitant or sedative, until M. Chippendale discovered that the active principle of this vegetable was nicotine. Dr. G., of all the various preparations of nicotiana, is most partial to the extract. He has seen three cases of this obstinate neuralgia yield instantly and permanently to a single application of the aqueous solution of this extract. And its success when rubbed upon the diseased jaw was no less marked in a case of tooth-ache.

La Verrier, who has immortalized himself by the discovery of a new planet, is but thirty-one years of age. He was born in Lower Normandy, a province which, within the last century, has given to physical science, besides the young astronomer just mentioned, the following illustrious names: Rouelle, Vauquelin, Fresnel, Dumont, d'Urville, and Laplace. The Minister of Public Instruction has just addressed a letter to the Academy of Sciences concerning the discovery of La Verrier, in which he says: "I think it right to inform the Academy of Sciences that the King has, in consideration of the event which now interests the scientific world, named M. La Verrier officer of the royal order of the Legion of Honor. He had not arrived at his turn by time; but science has its services of exception and its actions of eclat as well as war. The labors of M. La Verrier are of the class which honor our age and our country."

You have heard, of course, of the fulminating cotton, first prepared by Professor Shönbein, of the University of Bâle, which is creating a great noise all over the world. The discoverer has pretty clearly shown, in his various experiments,

that the inflammability of this new explosive is greater than that of gunpowder; it has several times been placed upon gunpowder and exploded without igniting that substance. The combustion of the cotton creates no smoke, affords no appreciable odor, and leaves no residuum. Its immersion in water, provided it is afterwards carefully dried, does not in the slightest degree impair its explosive powers, and the cotton after it is prepared, retains its natural properties. Dr. Otto, of Brunswick, thus describes the process of preparing the cotton, which will be seen to be exceedingly simple. The cotton is to be steeped for half a minute in concentrated nitric acid, then taken out and immediately thrown into water, which is changed until all traces of the acid have disappeared. That which is in lumps or rolls must be carefully opened in order to free it more perfectly from the acid, after which it is thoroughly dried. The smallest quantity of the cotton thus prepared, placed upon an anvil and struck with a hammer, produces an explosion like the fulminating silver. When used in fire arms, it is made into a small roll and wadded down as is practised with gunpowder. Time will fix the value of this article as a substitute for powder, but if it is kindled with such facility by the blow of a hammer, will it not increase very seriously the danger of handling guns?

The percussion of the ramrod driven down with more than the gentlest force, would probably ignite the cotton to the great hazard of the sportsman. And, again, when the gun became heated by repeated discharges, the ignition of the material could hardly be avoided. For these reasons, I should doubt whether the explosive cotton can ever come into general use as a substitute for gunpowder.

M. Sanson, one of the *savans* of this great metropolis, has lately addressed to his government a long letter, in which he recommends the King to prohibit the importation of all *venomous reptiles* into France, except for the *Jardin des Plantes.* He draws a frightful picture of the disasters which might flow from the escape of a single female rattlesnake big with

young. Her eggs, he fancies, would all hatch, and the little snakes all grow to be big ones, and in their turn go on producing new generations of snakes until France would be overrun with these formidable reptiles. Several of the papers ridicule the suggestion as very absurd. If a female snake should escape, say they, it would perish from the cold of the first winter; or if she should survive, the heat of the summer would not be sufficient to hatch her eggs. But are they sure that the rattlesnake lays eggs? I am sure it is stated in some works on herpetology that the venomous snakes bring forth their young alive, and not in the shape of eggs. Nevertheless, the fears of M. Sanson may well excite the merriment of his countrymen.

ART. II.—*A Case of Uterine Hydatids.* By FRANCIS H. GORDON, of Clinton College, Tennessee.

Mrs. A. G., æt. fifty-one, has had ten children, the youngest being over six years old. During the spring of 1845 her catemania became irregular, and generally persisted only about two days. The abdomen soon began to enlarge, and her friends thought she was again pregnant; but each supposed menstrual period caused temporary diminution of the abdomen. About the 25th December the discharge ceased, and did not return till 21st March, 1846. During this interval the abdomen enlarged rapidly, and by the last named date was as large as at the full term of uterogestation. Now, the discharge, which appeared to be serum, sometimes slightly tinged with blood, showed itself, and continued to return every two or three days, but in so moderate a quantity as not materially to affect the patient's strength or the size of the abdomen. About the 20th of April, it became profuse, consisting largely of blood, and caused speedy prostration. The recumbent posture and a liberal use of alum were the means

resorted to by the family; and the woman soon recovered so as to be up. After this, the discharge, which still returned every few days, assumed the appearance of a mixture of pus, blood, and serum. The woman's health gradually declined. Feet generally cold; brain and nervous system, liver, stomach and bowels, all suffered.

June 15, 1846. I was called to see her in the night, and found her with strong labor pains, the fundus of the uterus being about an inch above the umbilicus; the whole organ was hard and quite sore. The woman had daily had smart pains for more than a week, attended with the expulsion of lumps, which I supposed to be coagula. With the view of suspending or moderating the uterine action till the organ could be got into a safer condition for expelling its contents, I immediately gave a grain of acetate of morphia, and directed a warm poultice to be laid over the whole abdomen. These means produced partial ease for about five hours, when the paroxysms returned with violence, and in about one hour expelled a mass of *hydatids* amounting to nearly a chamber pot full, followed by profuse hemorrhage and dangerous prostration. The uterus was grasped at the fundus so as to cause reduction. I then gave four grains of acetate of lead. The hemorrhage moderated, and the strength of the patient rallied in three hours, and with the reaction the pains returned. Fearing the result of another scene so perilous as the one lately witnessed, I gave a grain and a half of the acetate of morphia, which induced several hours sleep. At 4 o'clock, P. M., on the 16th, a mass of hydatids was expelled, weighing several ounces, which was shown to the patient at her request; she remarked that it was just such as had been discharged almost daily for more than a week, some of them being less and others larger.

A broad bandage was now firmly and smoothly applied; small and oft repeated doses of sulph. and carb. magnesia were directed as an aperient; patient to be kept cool, quiet and recumbent; poultices over the abdomen to be resorted to often enough to keep down all signs of inflammation; daily

injections of warm water into the vagina, and diet light but nutricious. From this time to the 24th, parcels of hydatids were daily expelled, but the pains were moderate and the hemorrhage inconsiderable. Febrile symptoms underwent gradual abatement, and improvement was progressive. At this time, 24th October, the woman's health appears to be perfect.

I have carefully preserved the mass of hydatids expelled during my first visit; it being a most interesting specimen. I suppose the number of cysts it contains to be more than a thousand, varying from the size of a millet seed up to that of a plum. Their matrix, or medium of attachment to the uterus, consists in part of coagulating lymph infiltrated with blood; but a larger portion much resembles the maternal placenta. The necks of the primary, or parent cysts, penetrate deeply into this substance; secondary hydatids are attached to the sides and summits of these; tertiary ones to the secondary, and so on, in some instances to the sixth generation. Their most common shape is that of a Florence flask; but some are cylindrical and connected at their extremities by pedicles. They are of two colors, a large proportion being perfectly transparent, and the remainder, perhaps one-fifth, varying from a pale red up to the deep hue of a ripe cherry.

Could the contents of the uterine cavity have been viewed in its unbroken arrangement, these must have presented a curious and interesting picture. The whole internal surface was lined with what may be fitly termed a placental mould, for the nourishment of a most luxuriant vegetation. As if nature had been unmindful of her common laws, and disposed to frolic upon a human constitution, in imitating some splendid grotto, the whole surface of the cavity was studded, in rich profusion, with fruits of all grades, from those which had just dropped their petals, up to those of full growth and maturity; between many of which were insinuated filamentous folds resembling leaflets. But not contented with the most dense production the surface could contain, racemes were made to spring from the sides and summits of the primary

fruits, and from these other clusters were pendant, and so on, multiplying in geometrical progression, until the whole cavern was decorated with clusters of various sizes, colors, and grades of maturity; and, to render the process complete, the whole was watered by an intermitting fountain, ever gentle and limpid, save when reddened by the wine of ripe fruits, which, anon, swelled it to a desolating torrent.

October, 1846.

ART. III.—*Excision of the Inferior Maxillary bone for Osteo-Sarcoma.* By WILLIAM H. DEADERICK, M. D., of Athens, Tennessee.

The operation of which I propose to give a very brief account, was performed nearly thirty-seven years ago, and at that period, so far as I am informed, was unknown in surgery. Since that time it has been repeatedly executed, and the claim of having originated it has been set up by a foreign surgeon. By comparison of dates it will be seen that my operation preceded that of M. Dupuytren by two years.

On the 6th of February, 1810, Jesse Lay, a lad of about fourteen years of age, was brought to me on account of an excrescence which gradually arose from his gums, and which, in consequence of long neglect, completely enveloped the lower maxillary bone of the left side. It filled the inside of his mouth to such an extent as greatly to interfere with respiration and deglutition. Externally, the tumor exhibited the appearance of a wen of considerable size, and as it was daily augmenting it was evident that nothing short of its entire removal, with the portion of the bone it occupied, could save the life of the patient. Accordingly an incision was commenced just below the left ear, and continued along the course of the bone to the centre of the chin; a second one was made at right angles to the first. The integuments were then dissected from the tumor, and the bone sawed off at the angle of

the jaw, and half an inch from the centre of the chin nearest the angle divided. The integuments were united in the usual manner, and the boy had a speedy and perfect recovery. The youth, at the time of the operation, although fourteen years of age, was not larger than boys usually are at ten or eleven; but immediately afterwards he commenced growing, and attained the ordinary stature of manhood. A well trained whisker hides, in a great measure, the scar left by the incision, and at a short distance the effects of the operation would not be observed.

Athens, Nov. 1st, 1846.

Note. Dupuytren is the generally accredited author of the operation above described. This distinguished surgeon removed a portion of the lower jaw for a cancerous affection of the gums in 1812. The operation of Dr. Deaderick, it will be seen, was performed two years prior to that time. Dupuytren's case was reported to the Faculty of Medicine at Paris, by Lisfranc, in 1813. The report of Lisfranc is republished in the *Dictionnaire des Sciences Medicales*, vol. xxix. p. 430. Dr. Deaderick did not give to the public any account of his operation before 1823, when he described it in the American Medical Recorder.

Dr. Mott, in a letter to Mr. Liston, has preferred a claim to priority in this operation. He says, "I claim for myself and my country *originality* in the operation of exsection of the lower jaw at the temporo-maxillary articulation, and in different proportions for osteo-sarcoma. I avow and declare solemnly that before my first exsection of the lower jaw for osteo-sarcoma, I never saw, read or heard of anything of the kind ever having been done in any country." He adds, "We repeat and aver, that the exsection of the lower jaw of even a fourth part, much less a half or two-thirds of it, for any form of sarcoma involving the whole texture of the bone, has never in our opinion been performed by any surgeon, past or present, until by myself at the time above stated."

The operation of Dupuytren is admitted not to have been

osteo-sarcoma, but for a cancerous sore situated over the angle of the jaw. Ribes, in the *Dict. des Sci. Med.*, referring to this operation, has the following words: "These facts lead to the hope that fungus, or osteo-sarcoma of the lower jaw, a disease so formidable that it has in many cases been vainly attacked with the iron and fire, will henceforward, since the operation of M. Dupuytren be removed by amputation of a portion more or less considerable of the lower jaw, without the danger of any accident, and, if the disease be local, with a certainty of success."

Many years before these predictions were uttered in Paris, the operation had been successfully performed by a young surgeon in the backwoods of Tennessee.

In a lecture delivered by Dr. Houston, of Dublin, in 1844, and published the same year in the London Lancet, the honor of having originated this operation is claimed for Mr. Cusack, who has performed it twelve times. The lecturer says, "The grand exploit of amputating the lower jaw, even from its articulations, the boldness of which has been only equalled by its success, has now become a standard operation in surgery. Persons afflicted with the distressing and loathsome disease for which this operation is undertaken, were formerly allowed to die, without any idea being entertained of the possibility of saving them; but now that a great mind, relying on a sound knowledge of the capabilities of the human frame, has set the example of extirpating the diseased mass *in toto*, many surgeons have fearlessly followed in the path thus laid open for them, and have derived honor from the success which crowned the enterprise. The success of this operation, both as regards immunity from danger, rapidity of convalescence, and the useful quality of masticatory apparatus which follows, is almost incredible."

Upon this passage Dr. Townsend, in his edition of Velpeau's Surgery, comments thus: "To whomsoever, therefore, the honor of this great triumph belongs, *mutatis mutandis*, the eulogium ought to apply equally well in Dr. Huston's conceptions, who, doubtless, would not desire to diminish one iota of

it, because a name of different orthography from that of the justly respected Mr. Cusack, should happen to be found by a species of anaplastic substitution, to dovetail more completely than his with the historic facts in the case. We say cheerfully with all our heart, *palmam qui meruit ferat!*"

Dr. Deaderick's is the name which seems "to dovetail" *most* "completely with the historic facts," and to him, therefore, must the palm be awarded. True, he operated but once, and his operation was not made known to the world for many years afterwards; but it was undertaken for what appears to have been osteo-scarcoma; it involved the excision of nearly one-half of the lower jaw bone, and was crowned with perfect success. Dr. Deaderick did not call the disease *osteo-sarcoma*, but, in his account of his operation published in the Medical Recorder, described it as "a cartilaginous tumor." In the brief notice of it given above he applied no name to the affection, and the title prefixed to his communication is ours. Every medical reader knows how vague is the term "osteo-sarcoma," and what a diversity of morbid growths are called by that name. From the description of the tumor in Dr. Deaderick's case we have no doubt it would be styled osteo-sarcomatous.

It appears, then, that Dr. Deaderick preceded Dupuytren in the operation of excising the lower jaw bone two years, and that he anticipated Dr. Mott by eleven years, although he neglected to publish an account of the operation until after Dr. M. had communicated the results of his to the world; consequently Dr. M. was unapprised of what had been done by his countryman. He may still claim "for his *country*," if he cannot for himself, "originality in the operation," for Cusack's operations were performed two or three years subsequently to Dr. Mott's first. The operation has been performed by Dr. M. seventeen times. In a note appended to his letter to Mr. Liston Dr. Deaderick's operation is referred to, and this brief, obscure notice is all the allusion to it that we have found in looking through the American edition of Velpeau's great work on surgery. We have deemed it but an act of

justice to a modest and worthy member of the profession to give these dates in connexion with the history of his case.

Y.

ART. IV.—*A Case of Inversion of the Uterus.* By E. HALLEY MCCOY, M. D., of Harrisville, Ohio.

On the night of the 20th of last January I was summoned to visit Mrs. Carmon, æt 21, who had been delivered, two days previously, of her first child by a midwife. The patient was lying on her back, with feet drawn up in the bed; her respiration was diaphragmatic; skin hot and dry; pulse small, wiry, incompressible, and beating one hundred and fifteen in the minute; mouth dry; tongue covered with a dark brown fur. She had extreme abdominal tenderness; the lochia was suppressed, and she experienced continued bearing down pains. On making an examination *per vaginam*, I encountered a body which at first struck me as being the placenta, but on passing my finger upward around the tumor, I found the vagina reflected in the form of a ring around the pedicle of the tumor. I now became satisfied that I had an inverted womb to contend with. After explaining the case to the husband and friends, I introduced my hand in a conical form, indented the apex of the tumor, and gradually but perseveringly carried it up through the *os uteri*, entirely relieving the expulsive after pains. I ordered an infusion of chamomile flowers to be thrown into the vagina every two hours, together with fomentations of hops to the abdomen, and a powder containing grs. 5 pulv. antimonialis, gr. 2 calomel and gr. ½ opium; one to be taken every two hours. On my second visit, eighteen hours after reducing the inverted womb, I found a decided improvement in all the symptoms; the powders had acted freely on the bowels, bringing away copious, dark, bilious dejections; the abdominal tenderness was subsiding; the

lochia had returned; the pulse had fallen to ninety and was soft and full; the skin was relaxed and moist, and the secretion of milk was established. In short, the patient required but little subsequent treatment, taking little else but a few ounces of elixir vitriol as a tonic, and at this time is able to attend to her domestic duties.

April 10th, 1846.

ART. V.—*A Case of Periodical Neuralgia.* By JAMES L. TAYLOR, of Trenton, Ohio.

Mrs. P., aged 27 years, formerly a resident of a miasmatic district, was attacked, March 2d, 1846, with the most excruciating pains in the left side of her head. Her sufferings were so extremely agonizing as often to cause a temporary loss of reason and consciousness. The first paroxysm, however, was of but short duration. March 3d, at 9 o'clock, the pain returned with rather more than its former violence; and this morning I was summoned to see her. Upon inquiry I ascertained that the week previously she had been indisposed, caused in consequence, as her friends thought, of exposure and loss of sleep. The pain could be traced along the course of the temporo-facial nerve, and was decidedly periodical in its character, and of the quotidian type. She had previously been subject to neuralgia, though of a different nature, the pain having been principally confined to the lower extremities.

After the pain had subsided, transient flushes of heat passed over the face and body; skin intensely hot and dry, attended with thirst, dryness of the mouth, &c., the pulse being full and strong. A good deal of nausea, with occasional vomiting, was also an attendant. In a word, her case presented all the phenomena of a hot stage, such as belongs to intermittent fever, and this was followed by profuse sweating. I directed calomel, grs. xv, and ipecacuan, grs. v, to be given

immediately; they acted as an emetico-cathartic. ℞ sulph. quinine grs. xii, sulph. morphia, gr. i—m. ft. div. in pill iv. One to be taken every hour, commencing four hours before the time of the expected paroxysm.

On visiting my patient next morning, I was somewhat surprised at finding that the paroxysm had returned with as much violence as on the day previous. I was informed this morning, that my patient had been, for two years or more, in the habit of using opium, or some of its peparations, freely, for pains of a rheumatic character. As, under these circumstances, it was evident that the opium had, partially at least, lost its influence on her nervous system, I ordered ℞ sulph. quinine, grs. xiv, sulph. morphia, gr. 1¼, to be made into four pills, one to be taken every hour as before directed.

March 5th. The paroxysm again returned, though somewhat abated in violence and duration. In each successive paroxysm, as the pain passed off, the patient experienced a numbness in the part of the head affected, and felt incapable of anything like mental exertion. As the next hot stage came on, the pulse became excited, full, hard and tense, and I determined upon venesection. This was carried to as great an extent as the symptoms rendered expedient, and was followed by calomel, ipecacuan, and opium, in divided doses. Under this plan of treatment the paroxysms ceased to recur, and the health of the patient was soon re-established. She is now in perfect health.

July, 1846.

ART. VI.—*A Case of Concussion of the Brain followed by Mental Derangement and Paralysis, successfully treated by Sulphuric Ether.* By JOHN TRAVIS, M. D., of Melville, Tennessee.

M. P. æt 25 years, was thrown from a horse against a dwelling house with great force; he was apparently dead for half an hour. His head was bruised and the integuments lacerat-

ed. When he revived he was found to be deranged in mind, in which state he continued for six weeks, notwithstanding he had two medical attendants with him daily. On examination, it was ascertained that there was no fracture of the cranium. So soon as his reason returned, his arms to the elbow, and his legs to the knees, became paralysed; he could move neither, which proved that the nerves of motion had lost their power. The function of the nerves of sensation remained unimpaired. In this condition his health otherwise was good. His physicians gave him a variety of medicines, and applied various rubefacients, blisters, &c., for several weeks, but the patient remained in *statu quo.* I was now called upon; I prescribed different articles of the materia medica—all in common use, in fact, except strychnia. This I intended to use as a dernier resort; but learning that ardent spirits would in a slight degree excite the nerves of motion, I sent the patient sulphuric ether, and directed him to take a large tea-spoonful in cold water, three times a day. After using this medicine three days he could bear his weight on his feet; and in two weeks he could walk without any assistance, and is now in a manner well, having the use of his arms and legs.

I have thought it proper to make these facts known, as it is a mode of treatment that I believe has not hitherto been pursued, and one which has proved eminently successful in a case which was deemed hopeless by the patient and his friends.

November 12th, 1846.

REVIEWS.

ART. VII.—*Scrofula; its Nature, its Causes, its Prevalence, and the Principles of Treatment.* By BENJ. PHILLIPS, F. R. S. Assistant Surgeon to the Westminster Hospital. Illustrated with an engraved Plate. 8 vo. pp. 355. Philadelphia: Lea & Blanchard. 1846.

That Scrofula is but imperfectly understood, and that the success of the most popular modes of treatment pursued in the disease is far from being satisfactory, is abundantly evident from the eagerness with which the grossest empiricism professing to cure it is embraced, even in the most enlightened communities. The ignorant quack, with his vaunted specific, commands more attention, and often more confidence than the most learned and eminent members of the profession.

Any work, therefore, and especially one based, as that which stands at the head of this article professes to be, upon long and patient observation, comes before the profession with strong claims to its attention and favorable regard. The addition of a single new fact to our limited knowledge of this formidable disease, cannot be deemed a matter of trifling importance. The author of this volume has devoted much time to his subject, and his means of observation, as will be seen from an examination of his work, have indeed been extraordinary. But that the number of facts collected by him has been sufficiently numerous, or that the observations have been made with a care and accuracy, to entitle his labors to such extravagant eulogies as have been passed upon them, we are not prepared to admit. We presume that there is a fashion in literary matters as in all things else under the sun, and that

when a book has been cried up by one critic as something extraordinary, the press is too apt to catch the strain and renew the applause, until echo herself grows weary with repeating the sound. Dr. Phillips has produced an excellent work on scrofula; we have read it with great satisfaction, and can cordially recommend it to the profession. At the same time, we are not able to concur in all the conclusions at which the author has arrived, and feel perfectly safe in saying that he has not exhausted the subject. We allow him to speak for himself in the following extract respecting his "own ideas of the nature of Scrofula."

I conceive, then, that Scrofula is a disease of the constitution and that it is most clearly manifested by certain external signs, of which swelling of the subcutaneous lymphatic ganglia is the most conclusive. But *tumid glands*, however they may be situated, are not always a proof that a constitution is scrofulous; they may be the result of local irritation, in an apparently untainted constitution. The glands in the groin may swell, from a sore on the foot; a mesenteric gland may swell under the influence of an ulcer in the intestine; a cervical gland may enlarge under the irritation of teething, or of scalp disease. A *tumid gland*, even *in the neck*, is then no proof that the constitution of the individual in whom it is found is scrofulous. But supposing one, or several cervical glands to become tumid, in the apparent absence of any obvious local irritation, this would constitute a strong ground for suspicion, that the constitution was suffering under the taint of Scrofula. It would not, however, amount to more than suspicion, and the suspicion could scarcely receive absolute confirmation, unless we have the opportunity of observing the contents of the tumor itself. Unless the swelling of the gland be accompanied by the deposit of a product, hereafter to be described, known as *scrofulous matter*, the proof of a scrofulous constitution is, in my judgment, wanting.

In so far then as the local manifestation is concerned, the question, "What is Scrofula?" admits of a tolerably satisfactory solution: but as I regard the local affection, wherever seated, as clear evidence of constitutional disease, it is most important to inquire what that state of the constitution is which causes the local affection; and whether in the absence of the local affection, there be any certain means of deter-

mining whether a constitution be scrofulous or not. Because it may be, that the means at our disposal may be powerless to remove the matter when once deposited.

It may be objected to this view of the case, that there are scrofulous diseases in which no scrofulous matter can be demonstrated; "scrofulous ophthalmia," for instance. Supposing such an objection to be made, my answer is this; that the ophthalmia in these cases is simple catarrhal inflammation set up in a scrofulous constitution, and acquiring its particular characters, not in virtue of any thing specific in its nature, but in consequence of the state of the constitution upon which it is grafted. The particular character to which I allude, is a peculiar irritability, which is a prominent feature in inflammation set up in debilitated constitutions, and there is certainly nothing uncommon in such inflammation in persons whose health has been broken by other causes than scrofulous disease. At the time I visited the Whitechapel Workhouse, scrofulous ophthalmia was epidemic among the girls; of eighty-nine present, seventy were suffering from the disease; but of the eighty-nine, only fourteen exhibited any of the ordinary marks of scrofula; and the proportion of girls who presented marks of scrofula, found among those suffering from ophthalmia, was not greater than among those who were free from it.

I believe that diseases regarded as scrofulous, but in which no scrofulous matter is present, are not scrofulous at all, but simply the result of such low inflammatory action as is often set up in a debilitated state of the constitution.

From this it will be seen that Dr. Phillips does not regard "tumid glands, even in the neck," as proof of a scrofulous constitution; but yet in collecting statistics relative to the prevalence of scrofula, he visited parish schools, union houses, prisons, and all other institutions where children were to be found congregated, in order to ascertain how many of the inmates had enlarged glands, cicatrices, or other indications of a scrofulous taint, how many had been sent home for such causes, or how many prevented by them from attending school at all. Now, if tumid glands may exist independently of scrofulous disease, may not these glands inflame and suppurate, leaving cicatrices which could not be told from those of strumous ulcers? What evidence could the author have had

that these inmates of public charities, and prisons, were the subjects of scrofula? It is not possible to determine, by mere inspection, whether tumid glands contain scrofulous matter, or pus of another sort; it is not stated that any other means were resorted to in order to determine their nature, and we well know that it is not a very easy matter in every case to make out the diagnosis. Certain mental characteristics, and certain external features have been much depended upon as affording evidence of a scrofulous predisposition. Our author does not attach any importance to these criteria, having found that scrofula invades constitutions marked by every external peculiarity. He says:

The result of my own observation of persons whose constitutions are tainted with scrofula, has satisfied me that there is the utmost possible variety in the external characters of those who present an undoubted scrofulous taint. When the taint is made evident by scrofulous deposits, we find in one case the hair and complexion are dark, in another light; in one the cheeks are rosy, in another pale; in one the alæ nasi are expanded and the upper lip is tumid, in another both of these features present opposite characters. So that it becomes a matter of great difficulty to determine whether the presence or absence of those signs, is most characteristic of a scrofulous constitution.

But it is incumbent on me to endeavor to point out the qualities which are most commonly met with in those who are tainted with scrofula.

In the form of the body there is usually observable a want of muscular development, but even this is often absent. There is often an appearance of plumpness or roundness, which is the result not of muscular development, but simply of an hypertrophied, or infiltrated condition of the cellular tissue, and which rapidly disappears under fatiguing exercise, privation, or disease. Commonly, there is a general paleness and coldness of the surface of the body, which is owing to a feeble circulating apparatus; but in a large number of cases, about one fifth of the whole, that paleness does not extend to the face. The color of the hair is very variable, but for the most part it inclines to a dark tint. Of nearly nine thousand scrofulous children, I have myself examined, a little over 33 per cent. had light hair and eyes. The alæ nasi may be broad,

but for the most part they are not so; the upper lip, or even both may be tumid, but in a majority of cases they are not so. There is not, as some persons have supposed, any thing constant in the shape of the lower jaw, or in the appearance of the teeth. The abdomen is commonly tumid. The whole of the mucous surfaces are especially liable to derangement; discharges from the nose, the eye, and the ear, are common. The digestive mucous membrane affords early indications of suffering; the tongue has commonly a dirty whitish coating, the tonsils are usually enlarged, and they are often so tumid as to impress a disagreeable and frequently husky character upon the voice, and to cause snoring when the patient is asleep. A still more deleterious influence is exercised by these tumid bodies; they lessen so much the channel for the passage of the air in respiration that the sufficient development of the chest may be interfered with. The stomach and bowels are frequently disordered, and digestion is ill performed; acrid eructations are common, flatulence is often very troublesome, and the action of the bowels is very irregular, sometimes relaxed, at others constipated; sometimes the evacuations are clay colored, very offensive, and of varying consistency; at others, having a redundancy of bile. Similar evidences of derangement are observed in the air passages, commencing at the nose, (which exhibits increased secretions upon the occurrence of very slight variations in temperature,) and passing through their whole length. Similar phenomena are observed in the mucous tissue of the genito-urinary system; the bladder often shows an impatience of the presence of the urine, and the desire to avoid it is often frequent. The skin, though often dry and hard, is sometimes the seat of a considerable greasy exhalation; sometimes it is found to be fetid and sour. The acidity of the exhalation may be so decided as to determine a reaction upon litmus paper; in many of the cases observed by Mr. Kaye on the Mediterranean coast it was so. The scalp and other parts of the cutaneous integuments are often the seat of eruptive affections. The absence of vascular and muscular energy often causes the child to lie and sit about much, and indisposes him to enter into the energetic games of his playfellows. As to the intellectual development claimed for scrofulous persons, I am bound to say that it is usually wanting. That many scrofulous children present that character is quite true; but the result of very careful observation has convinced me, that the overwhelming majority are without those superior intellectual qualities which have been pointed out as their ordinary character. Among the better

classes, the feebleness of a scrofulous child attaches to him an interest which, without it, he might not have enjoyed. To compensate for his physical inferiority, the anxious parent seeks to make him mentally superior to his bodily stronger fellows, and frequently succeeds; but often the limit of healthy action is passed, the nervous and intellectual systems have the vital action concentrated on them too intensely; the sufferer loses flesh, the general health languishes, and the intellectual faculties may give way, destroyed by an opposite but not less sure method than that which breaks down the poor man's child.

If, as our author adds, scrofula be a disease of the constitution, and may exist without being manifested by the ordinary local signs; or if these local signs do not indicate necessarily the existence of a scrofulous constitution, of what value are these observations? They were intended to determine under what circumstances, and in what localities the disease was most frequent; and yet according to the author's own statement it is impossible, in a large majority of cases, to ascertain whether a patient be scrofulous or not. A knowledge of the frequency of any disease presupposes a knowledge of the means of recognising it. Statistics concerning the prevalence of any disease are exceedingly valuable when the disease can be readily recognised. By such data we are often able to arrive at a knowledge of the causes of disease. Thus, we know that intermittent fever originates only at certain seasons, and in particular places, and, therefore, that it is caused by some influence which is only active at such periods and in such localities. If Dr. Phillips had been in possession of means by which scrofula, when existing, could always be detected, and had found it much more frequent among children who were crowded together in large alms-houses, union houses, &c., it would have assisted us very materially in deciding upon the causes of the disease. Since that has not been made manifest we confess that we are not able to perceive how any great amount of good can result from such observations.

We pass over the third chapter, on the scrofulous deposit, without any remark, and reach the next, which is an interest-

ing and valuable one. In this the author treats of the state of the organ in which the morbid product is about to be deposited. That enlarged glands, even in scrofulous subjects, often exist without being the seat of scrofulous matter, and simply in a state of congestion or inflammation, there can be no doubt.

Commonly, if not always, glandular structures do undergo considerable change before scrofulous matter is deposited in them. They acquire a considerable increase in volume, in density, and in vascularity. The bulk may be ten or twenty times what is natural to them, the density may equal or exceed that of veal, and the change of color from increased vascularity is very remarkable.

A point of considerable interest is here presented. Is this state of the gland determined by the circulation within it of blood which has undergone change, or is it independent of the blood? Does the blood fit the organ to receive the deposit, or does the organ fit itself? This is an important question, but of very difficult solution. Important too, with reference to treatment; because if the action set up were purely local, means might be taken to change it, and render it unfit for the deposit. If the action depend only upon a general contamination of the blood, how comes it that all the lymphatic glands are not equally affected? It is notorious that they are not. The bronchial glands are affected more than twice as often as those of the mesentery, the latter four times as often as those of the neck, though in many respects least exposed, and the last named glands four times as often as those of the axilla and the groin. There must be a reason for this. It may be that the cause of the greater frequency in the glands of the mesentery, is the irritation set up in them by depraved chyle, the result of bad food or improper feeding; which state may be kept up until the blood is sufficiently charged with improper materials to occasion a deposit to be made; and I apprehend the cause of the greater frequency of the deposit in the cervical than in the inguinal or axillary glands, is that they are more exposed to alternations of temperature and to irritation; that, therefore, cæteris paribus, under the same amount of constitutional irritation, congestion is more rapidly developed in them, and therefore the deposit is more frequently found in their substance.

The author regards scrofulous matter as a deposit from the

blood, without attempting to determine whether it is the consequence of previous alteration in the composition of the blood itself, or of disease in some organ which forms and causes the deposit from healthy blood. He remarks:

As a general law, it is now admitted that morbid products are derived directly from the blood; and the questions then to be resolved are these:—Has the blood previously undergone a change in its elements, the part in which the deposit is made remaining unchanged? Or, does the blood remain in a healthy condition, the part in which the deposit is made exercising a specific influence upon the blood, and determining the character of that deposit? Or, are both removed from a healthy condition before the product is deposited?

In the case of most morbid products, the result of diseased action is to determine the deposit of matter, the previous existence of which in the blood cannot be demonstrated; yet it has been said that tubercular matter has been observed in the circulating blood. In the case of scrofulous matter, no one but Lugol has, so far as I know, asserted the observation of its presence in the circulating mass. His statement is, that he found nodules of such matter, already formed, carried along with the blood. Supposing the observation to be correct, there is no proof that such nodules were formed in the circulating fluid. Bearing in mind that this statement is unsupported by any similar observation made by others, of even the occasional existence of scrofulous matter in the blood, the evidence that I may offer in support of the opinion, that such matter comes from the blood, may be regarded as insufficient. I certainly cannot give a demonstration of the soundness of that opinion. Still, if I show that in the state of health, the blood contains materials such as are found in scrofulous deposits, and that in particular states of the economy, those materials are increased or diminished; and if I show that when particular materials are increased, scrofulous deposits are more frequent, and that the deposits are made in the cellular, or other structure of the organ, and not in the lymphatic channels, I submit that we shall be fully justified in assuming that scrofulous matter is a deposit from the blood.

The analyses of healthy blood, made by Marcet, Berzelius, and Lecanu, correspond so nearly, that we may assume that the elements are correctly determined; and we find them to consist of potash, soda, carbonate and phosphate of lime, albumen, fibrin, and probably gluten. These elements may be

found in scrofulous matter, and therefore the notion of its being separated even from healthy blood, would not be a startling proposition to lay down. All that would be required to constitute the scrofulous matter, would be that the elements should be differently combined. But that which makes it improbable that the matter can be formed from healthy blood is, that in the state of health those deposits do not occur; it is therefore fair to infer that there must be a previous change, either in the blood, or in the organs through which the blood circulates, and in which the deposit takes place, or in both, before it can occur.

In the analyses of scrofulous blood by various chemists, our author has not found sufficient uniformity to enable him to determine what changes this fluid undergoes, although in every instance there was found a "considerable deviation from the condition of the healthy blood." He quotes numerous authors, and then gives his own experience, in the following quotation:

The observations of Andral, Gavarret, and others, show that the solid, as well as the fluid constituents of the blood, undergo considerable changes from the influence of food, as well as from that of disease; but it is not shown that the increase or diminution affects all the constituents equally. There may be, at the same time, an increase of one and a diminution of another; those constituents appear to have no mutual dependence on each other.

Enfeebling agents seem to affect, in the first instance, the proportion of red globules; it is constantly diminished, while the proportion of fibrin may be increased. And supposing food to be the agent by which the change is accomplished, the process seems simple enough. Bad food produces bad chyle, bad chyle imperfectly renews the blood, perverts its elements, diminishes, destroys, or augments its plasticity, causes the predominance of certain principles over others, and possibly so changes the composition of the blood, as to determine in it non-analogous productions.

As a general rule under prolonged abstinence, the quantity of blood diminishes, successively, during the whole time of its duration, and at last the quantity becomes so small that one only wonders how it circulates; and in these cases it is com-

monly found that the proportion of albumen increases, while that of fibrin diminishes.

The imperfect accomplishment of the functions of depuration, as is observed in the Berlin Report, is also a principal cause of morbid states of the blood; any change in the exhalation of carbonic acid gas, or aqueous vapor, in the quantity of sensible and insensible perspiration in the urinary and other secretions, produces alteration in the characters of the blood; and if the materials for those several products be left to accumulate in the blood, they act as poisons; it must be evident, therefore, that any material interruption of those functions, if not compensated for, or supplied by some other, must necessarily induce a change, not only in the quantity or quality of the materials of the blood, but also in its vitality.

To show how far surrounding circumstances, by inducing Anæmia, may alter the natural condition of the blood, I may state, after Andral and Gavarret, that in 1,000 parts of healthy venous blood, we may find:—3.0 fibrin, 127.0 globules, 80. solid matter of serum, 790. water; while in Anæmia its state has been found so changed as to yield: 1.2 fibrin, 36.0 globules, 80 solid matter of serum, 881.8 water. Here the diminution of globules and the increase of water is very striking, so also is the decrease of fibrin.

Baumes stated that in scrofulous patients the different constituents of the blood are less intimately mixed than in healthy persons, the union of the molecules being feebler than in the state of health. Thouvenel observed the same state, and conceived that it was owing to an excess of acrimony. Denis also alludes to it, but he refers to an excess of alkalies. Supposing acrimony to mean acidity, it is certain that both alkaline and acid principles are capable of producing important changes in the constitution of the blood.

Dubois (d'Amiens) also observed the diffluence and imperfect coagulability of the blood in scrofulous persons; he also pointed out a change produced in the form of the globules; he found them "lenticular, the central depression, or spot, being extended beyond its natural limits, and so defined that they looked like wheels," "many of them being also deformed, notched, or otherwise irregular."

I have examined the blood in sixty-seven instances of scrofula, and although I have almost always observed a considerable deviation from the condition of healthy blood, the changes have not presented sufficient uniformity to induce me to regard any particular condition as specially characteristic of scrofula; the changes are such as seem to belong to a tol-

erably extensive group of affections, all, it is true, being connected with disordered nutrition and debility.

In almost every case, the coagulum was relatively small, the serous menstruum large, the clot was usually very soft, almost diffluent; in a few instances only it was tolerably firm. In almost all cases, the proportion of globules was considerably under the healthy standard. The fibrin had not usually undergone much change; in a few cases it exceeded, in many more it was below the healthy standard. In most instances there was a considerable increase in the proportion of albumen; in almost every instance the proportion of salts was found to exceed the healthy standard; in some instances it was nearly doubled. At one time I thought I had clearly made out, that the proportion of chloride of sodium was deficient, and certainly in many cases it was so; but in many other cases that deficiency was not evident. If succeeding observations should establish a frequent co-existence, it might be well to carry out Russell's salt water plan in the treatment of the disease; he conceived it to be efficacious. It may be, that salt water so used acts as a stimulant of the whole economy, increasing plastic energy, and thus improving the vigor of the system.

In some cases I have observed, under the microscope, as did F. Dubois, that the coloring matter adhered closely to the globule, and that a certain portion of it seemed to be dissolved in the serum, but I do not, with him, regard this as an ordinary character of the blood in such cases. I have usually met with this peculiarity when the blood has been drawn many hours, and I have been more disposed to regard it as a consequence of a disposition to early decomposition than as a proof of any vital change. M. Dubois has always, in such cases, observed the spheroidal and the lenticular globules. He conceived that the lenticular globules were changed in form, some appearing as if perforated like wheels, others irregular or notched. Although I have observed similar appearances in the blood of scrofulous persons, I have also observed such appearances in the blood of persons who did not suffer from scrofula; in fact, in many of those diseases in which anæmia is a distinguishing feature; and I am not, therefore, in a condition to point out any particular state of the blood which is certainly characteristic of scrofula; but it is certain that if we examine the blood when the marks of scrofula are evident, its altered condition is also evident; but I know no particular condition of the blood which clearly marks the existence of scrofula. However the occurrence of similar changes, at the same time, in different regions of the body; seems to point to some other than a local

agent, as producing the change in the organ in which the deposit is made—and that agent the blood.

This discrepancy in the analyses of the blood in scrofula may have been owing to the absence of inflammation, or to the different degrees of inflammatory action existing at the time the blood was abstracted. The following are the results obtained by ourselves in the analysis of the blood of a strongly marked scrofulous subject, with considerable enlargement of the cervical and mesenteric glands, the latter of which being also much inflamed:

Temperature of the blood, 98½°
Specific gravity, 1028

Water,	807.
Solid residue,	193.
Fibrin,	3.836
Albumen,	83.333
Salts and extractive matter,	20.
Blood corpuscles,	87.

The fibrin and water are slightly increased in this specimen; the salts are very much augmented, being nearly double the normal quantity, while the corpuscles are somewhat diminished. The few analyses of scrofulous blood which we have made, like those of our author, have not been so uniform in their results, as they have been in fever and some other diseases, and yet, in the different cases, there was sufficient diversity of symptoms to warrant the belief, beforehand, that the results would be various. But unsatisfactory as these observations have been, if we are to make any farther progress in the investigation of scrofula, this must be the starting point. That the blood is changed in this affection is shown by all the observations that have been made concerning it; and although it may be very long before the precise alteration in this fluid which constitutes scrofula is ascertained, yet it may be done by making a sufficient number of analytical observations to enable us to determine the true relation between the patholo-

gical conditions of the blood and certain local signs or symptoms. We must ascertain in this way the anatomical characters of the disease in its various stages, and we must learn by well marked signs to recognise the disease in these different stages; we may then hope, by collecting statistics as to the circumstances under which it most frequently occurs, to learn something of its causes.

The author's opinion in regard to the causes of scrofula may be gathered from the following extract:

The alleged causes of scrofula are so many, and their action is said to be so constant and so efficient to produce the disease, and so few human beings can be wholly protected from their influence, that it is wonderful so many persons should appear to be exempt from the affection. It is equally surprising how slender usually is the proof offered by the advocates of a particular cause, in support of its complete efficiency, to induce the development of the disease. The consequence of such vague assumption is, that those who are not satisfied with the sufficiency of one alleged cause, are prepared to advocate as conclusive the influence of another, and it may be a very opposite one, with no stronger evidence in sup port of the latter theory than was furnished in favor of its predecessor.

One person advocates the opinion that the *hereditary* is the only cause; another contends that the disease is *always acquired*, and never inherited; one regards *contagion* as an efficient cause; another maintains that the disease is never thus communicated. One points to the *bad air of towns* as the cause; another finds the disease more prevalent in the country; one refers the evil to *farinaceous;* another, to *animal food.* It would be easy to enlarge this catalogue, but it will be sufficient to mention, that hereditary influence, syphilis, bad air, bad food, and a cold and damp atmosphere are the causes to which have been most frequently assigned the production of scrofula. The error of each theory is its exclusiveness; and when we reflect upon the difficulty of estimating the unmixed influence of any single cause, and when it is made probable that many causes are in action, we can scarcely comprehend how it happens that able inquirers should maintain, with so much pertinacity, not alone the efficiency, but also the universality of one.

The difficulty of estimating the force of any of the so

called causes of scrofula, is owing to the fact that the opportunity of observing a single agent in action alone is very rarely afforded; where one cause exists, another is, almost certainly, intimately associated with it; and to assign to each its proper influence is rarely possible. This is particularly the case with bad food, bad air, and bad clothing; the existence of one almost implies the presence of another. He who is too poor to buy good food, is also too poor to procure good lodging; and although there may be instances where we find much privation associated with the casual occupation of good lodgings, usually it is not so, and we have not had opportunities of observing such cases with sufficient frequency to make any useful deduction from them. As far as it can be accomplished, however, we must attempt to estimate the power of the many influences which are said to be efficient to produce scrofula, because it may be easier to avoid the causes of the disease than to effect its cure when once developed; and therefore if we can indicate the sources of evil with sufficient clearness, much may be done to withdraw the people from their influence.

The patient labor of our author has not resulted in the addition of anything new to our curative resources in this most formidable disease. He seems, indeed, to have attached far more importance to statistics relative to its prevalence, to the refutation of popular theories, and to determining the occupations or modes of living which favor or prevent scrofula, than to the remedial measures demanded when the disease is once fully developed. He divides the treatment into preventive and curative. Under the first head will be found many valuable hints as to the proper method of raising children, so as to guard against the disease. Indeed, all that is said upon this subject is eminently practical and important. An ounce of prevention is better than a pound of cure, is a maxim in which he seems fully to believe, and in few diseases, we are persuaded, can more be done in the way of prophylaxis, and less in the way of cure than the one under consideration. We find, therefore, no cause of quarrel with Dr. Phillips, because he lays as much stress upon the hygiene as upon therapeutics of scrofula. One of the preventive measures sug-

gested, and by far the most efficient, he is not able to sanction. Lugol, in the true utilitarian spirit, has proposed to put restrictions upon marriage, thus limiting the propagation of the species to those who enjoy sound and vigorous health. He would not pitilessly sacrifice children, as the Spartans did, because they were too feeble to become useful to the State, but he would "arrest the evil at its source, by interdicting marriage to sickly and infirm persons." Doubtless this would be drying up one most prolific source of human suffering, but would it not be at a great sacrifice of social and domestic happiness? Such is the conviction of society, as well expressed by our author in the following paragraph:

Lugol's proposal to establish legislative restraints upon marriage, and thus render health and vigor necessary qualifications for wedded life, may be less repulsive to the humane tendencies of modern civilization, than were the stoical principles of Spartan government; but his suggestions would be as little tolerated in the social condition of our times, as would the code of Spartan laws, and we must look to other means than these, for preventing or arresting the development of scrofula.

What are some of these? They are given in this volume in detail and with great judgment. Diet is one of the most influential.

Every child should derive its first food from the breast of a healthy woman; but many children cannot obtain this supply. The mother may be weakly, but if she has milk, she often chooses to nurse her child; and if she flags, from the drain upon her, she fortifies herself to meet it, by the use of as large a quantity of stimulants as may be necessary to support her failing strength; but such feeding often deteriorates her milk and lessens its nutritive power, so that the child's nutrition suffers. Or, the mother's supply may be cut off, then, if the circumstances of the parent admit of it, a foster-mother may be obtained, and the evil be thus partly remedied. But a foster-mother may not be, indeed, by the many, is usually not, attainable, and artificial feeding must be substituted. We have already shown, that under even favorable circumstances,

that is objectionable. But when driven to it, the object we must seek to obtain is, to place the child, as nearly as may be, in the same condition as it would be if suckled at the mother's breast.

The fluid which mostly resembles woman's milk, is that of the ass; but the supply is so small, that, practically speaking, it cannot enter into our consideration as a substitute for the milk of the mother. The ordinary substitute for the mother is the cow; and we have already seen how greatly her milk differs from that of woman. It may be diluted, but though richer than woman's milk, in certain materials, it is poorer in others; and if dilution reduces one element to its proper standard, it leaves another below it; and the milk of the cow, even then, continues to be very unlike the child's natural food. Further, it usually happens that many cows concur to furnish food for a single child; the milk of twenty, or even fifty cows, may be mixed together, and although the milk of one cow may not disagree with the child, the mixture of two or more may. Besides, before the child gets the milk, it has usually been drawn many hours, often long enough to undergo a complete separation into parts, and it is no longer a homogeneous fluid, like that which the child draws from the mother's breast. Before it is used, it is often subjected to a heat sufficient to coagulate the albumen, and is thus rendered more difficult of assimilation. Those evils might, to some extent, be remedied, though in practice they will usually continue. The milk may be obtained from a single cow, may be properly diluted, and may be given before any separation has taken place.

Exercise ranks next after food, and is indispensable to the development of the youthful system, and to the maintenance of health. Good air and nutritious food are necessary, but they will not avail without the free, full exercise of the body, which causes digestion and an active circulation. Dr. Phillips conveys the idea in forcible language in the subjoined extract:

It is not, however, enough to provide the means for making the blood pure by the influence of good food and good air; but means must be taken to make it circulate through the body with the necessary vigor. This it is which gives the value to the games of children, whereby active exercise is provided. Three things are therefore necessary to produce

perfect health in a child, even when born of the ordinary vigor: good food, good air, good exercise. Give the child these, and no matter what may be the ailments of its parents, or the climate in which he lives, you will do much to build up a vigorous and healthy man. In England it is among the rural population that the conditions to which I have alluded are most fully realized, in as far as concerns air and exercise; but after the child has been deprived of the mother's breast, its food is almost exclusively vegetable. Taken as a class, it is amongst this portion of our population that life has the highest numerical value; but it is among them that scrofulous swellings are most commonly found.

If we had room we should like to extend our extracts on this head, but for other topics connected with the prevention of scrofula, we must refer to the work itself.

Of the curative treatment laid down in this volume, we are not able to speak so favorably. It strikes us as, in some points, essentially defective. It indicates, indeed, all the popular remedies in use in the treatment of scrofula, and gives an estimate of their relative value; but yet there is a deficiency of detail which will be sensibly felt by the young practitioner. Moreover, the preparatory treatment so important to success in the management of this disease is not as fully detailed as we should have liked to have seen it. In a word, the author does not appear to have dwelt with as much satisfaction upon this branch of his subject as upon some others, perhaps because his faith in the remedial treatment is not great. We close our notice of his work by quoting his remarks relative to iodine as a remedy in scrofula:

In my own practice, I have exhibited every form of iodine extensively in cases of scrofula, and supposing the patient to remain exposed to the influence of the same conditions in which the disease was at first manifested, and the period of the year to be that which has not been found favorable for the cure of the disease under other modes of treatment, I cannot say that I have had reason to estimate the curative powers of iodine so highly as many others have done. I know that among the out-patients of hospitals, whose circumstances remain unchanged, and who apply at the latter end of au-

tumn, or the beginning of winter, we may often exhibit iodine in every form for weeks or months, without producing any sensible amelioration in the patient's condition. I know also that at the beginning of summer, a patient similarly affected and similarly treated, will, often in a few weeks, exhibit a marked improvememt—but how much of this should be referred to iodine? How much to season?

I by no means wish to express the opinion that iodine has no curative influence in scrofula; and although I believe that it is not, ordinarily, strong enough to make head against the disease in an unfavorable season of the year, yet I think I have known some cases in which decided benefit has seemed to result from its use, even when the season and other circumstances have not been favorable, and when no change in those circumstances has occurred, beyond the exhibition of iodine; and yet, even then, I refer the good to a general alterative action upon the economy, and not to any specific action; the general health has improved under the employment of the medicine, and the local disease has abated. Such cases have, however, formed a minority of those in which iodine has been administered by me, and I have endeavored, though not satisfactorily, to account for these exceptional cases, by some change, some effort made by the system itself.

What the exact influence of iodine is in scrofula, it is difficult to determine—I mean when not administered in combination with other substances than potass. I am satisfied, however, that in many cases under the influence of iodine, the tongue will become much cleaner, the appetite will improve, and the secretions will acquire a healthier character. And the impression left on my mind is, that the good which may be experienced from the use of this medicine, is not owing to any specific influence which it exerts over scrofula, but to its occasional power of modifying the mucous surfaces, so as to enable them to assist in producing healthy nutrition.

Whatever good may be derived from iodine when uncombined, I think that when associated with particular substances, with iron, for instance, its power over the disease may be increased; but it would be difficult to prove that there are not other forms of iron which act as favorably as the iodide in cases of scrofula. If that impression be correct, as much, if not more, of the benefit may be owing to the iron as to the iodine. However this may be, I have found the iodide of iron an useful tonic in such cases; and I always give it in the form of syrup, never exceeding four grains of the medicine in twenty-four hours. Whatever form of the medicine may be used,

I doubt the prudence of exhibiting it beyond a fortnight or three weeks at a time; at the end of that time, the preparation should be set aside, aperient medicines should be employed, and its use should be resumed with the same precautions. In this way any virtues which the medicine possesses are more surely brought out, and the inconveniences sometimes experienced from its administration will be, as nearly as possible, avoided.

J. R. B.

ART. VIII.—*The Water Cure, or Hydropathy.* From the British and Foreign Medical Review. By JOHN FORBES, M.D, F.R.S., one of the Editors of the "Cyclopædia of Practical Medicine," Editor of the "British and Foreign Medical Review," etc., etc. Philadelphia: Lindsay & Blakiston. 1847.

A popular modern writer has termed the soul "a succedaneum for salt," without some portion of which the body would inevitably putrefy. Some admixture of truth is equally essential to every heresy, whether in politics, medicine, or religion. A palpable, bare-faced absurdity, unrelieved by any gleams of reason, would not long pass current in any enlightened community. Where, therefore, we find any doctrine or practice prevailing for a length of time, and over a wide extent of country in which men read and think, we may take it for granted that it has some show of truth about it. It has some foundation, or it would soon fall to the ground. Men do not believe without evidence, though the evidence is often most insufficient, and the opinions formed most false. Homœopathy would be voted by any man of sense, hearing its tenets explained for the first time, a monstrous absurdity, and yet thousands are duped by its pretensions every day. Why is it? It is because remarkable recoveries sometimes take place while these doctors are standing by, and their infinitesimal doses get the credit of the cure. If there were no *vis medicatrix naturæ*, homœopathy would soon come to an end. But

the homœopaths do just nothing; they leave the curative powers of nature to themselves, and these oftentimes triumph over disease. Recoveries are not uncommon under the homœopathic treatment, and homœopathy has the seeming of reality about it.

Hydropathy, within a few years, has been added to the list of humbugs, and is now attracting to it the attention of men in all countries where medicine is pursued as a separate art. We are not sure that, at present, it is not the prevailing superstition of the times. In some essential respects it differs from its kindred system; and while, like homœopathy, as a system it is most absurd, like it, there is something about it, if not truthful, that bears a strong resemblance to the truth. Cold water, all physicians know, is a most powerful remedial agent, "and it may turn out that its application to the body is capable of being beneficially applied, in the cure of diseases, in modes of greater efficacy, and to a much greater extent, than has hitherto been practiced by medical men." If it should so turn out, and we are prepared to believe it will, there remains only one course for the members of the profession to pursue, and that is, as expressed by Dr. Forbes, "to adopt the improvements, if such they are, regardless of their origin, or their past or present relations." We see no reason to question that cold water is susceptible of far wider and more efficient applications than have yet been made of it in the management of disease, and we would not be frightened out of a fair appreciation of its virtues because an ignorant pretender has erected upon its cures a ridiculous system. Let us welcome truth wherever we can find it, and though a savage, or to suppose a stronger case, a *quack* might be the author of it, we should feel constrained to give him credit for his discovery, and thank him too. We must not forget to what purely fortuitous circumstances we are indebted for some of our most esteemed medicines; nor are we to leave valuable agents in the hands of empirics because they may have had most to do in drawing attention to them. On this subject we

adopt the sentiments of Dr. Forbes, who discourses thus concerning it:

When the religious reformer proposed to adapt profane airs to church psalmody, saying that he saw no good reason why the devil should have all the good tunes to himself, he is generally supposed to have acted as wisely as he thought shrewdly and spoke quaintly. In like manner, we see no good reason why the doctors of the orthodox or legitimate school, should refuse to accept good things, even at the hand of the hydropathists. They have done like things before now, as the pharmacopœia, in more pages than one, can testify; and we have not heard that there has been any great reason for regretting that they did so. For our own parts, we avow ourselves of such a catholic spirit, and so lowly minded withal, as to be ready to grasp any proffered good in the way of HEALING, whosoever may be the offerers, and wheresoever they may have found it. Not merely hydropathy, but even mesmerism, yea, stark-naked and rampant quackery itself, may, in this sense, be a welcome knocker at the gate of physic. It is not the demerits of the donor or the birthplace of the gift, that, in such a case, we are bound to look to—but simply whether it is qualified to aid us in our glorious and divine mission of soothing the pains of our fellow-men. If it is so qualified, the baseness of its source will be lost in the glory of its use; and, if ought of its original impurity still attaches to its application in our hands, the fault will be in us, not in it. A saint may sing the devil's tunes without contamination; a hero may wield the weapon he has wrested from a robber or a murderer; the medicament or the formula of the most arrant quack may be hallowed in the prescription of the true physician.

Perhaps our readers have not met anywhere with a personal description of Preissnitz, the founder of Hydropathy. Sir Charles Scudamore thus describes him:

His countenance is full of self-possession; rather agreeable; mild, but firm in expression; with an eye of sense, and a pleasing smile. The small-pox and the loss of some front teeth from an accident, impair his good looks. His manners are sufficiently well-bred. On closer acquaintance, you discover that he is quick in perception; is reflective; prompt, however, in decision; simple and clear. He inspires his pa-

tients with the most entire confidence, and he exacts implicit obedience.

Other travelers give a similar description of him.

They all agree in stating that he is a most arbitrary and tyrannical despot, issuing laws as irrevocable as those of the Medes and Persians, commanding obedience with a haughtiness that might well excite admiration and envy even in an autocrat, and exciting as much fear in his patients as is found in the subjects of the Grand Turk himself. He is also represented as remarkably cool and collected in emergencies, ever ready with his remedy on occasions of danger, and possessed of an imperturbable self-reliance. These traits suffice to prove that he is a man of original and powerful mind, exactly adapted to carry out a novel and startling practice. While his firm and decided manner is calculated to secure the confidence of his patients, his coolness and self-reliance enable him easily to bear the responsibility by which such confidence is attended.

His practice originated in a succession of trifling accidents, by which he was led to employ bathing in a neighboring spring for the relief of disease. It is not necessary to give them in detail. Success in the first attempts procured him a local renown, and he became the village doctor. From villagers his fame soon spread to patients of a higher rank, and Graeffenberg gradually became the resort of the hipped and the halt from all the surrounding district. By these his praises were sung louder and louder, until all the world began to furnish him patients by the hundred. He now possesses an enormous establishment, capable of containing several hundreds of patients, which is almost constantly crowded with ladies and gentlemen of every degree, and from every nation; while his disciples and followers, as is well known, have spread themselves throughout the world, and maintain, in every country, numerous and flourishing establishments formed on the original model of Graeffenberg.

The following is a pretty full account of his *methodus medendi:*

In his first interview with the patient, after hearing sufficient to give him a rude insight into the locality and general

features of the malady, Preissnitz proceeds to investigate its suitableness to his method of cure. He does this by sprinkling the surface of the body with cold water, or witnessing the taking of a cold bath, and then watching the development of reaction. If this appears in a certain amount of activity, he pronounces his case appropriate for his treatment; if not, he advises the abandonment of all hydropathic intentions. This is a mode of ascertaing the the power of the constitution quite original, and it cannot be said to be unscientific. The power of resisting the external application of cold is a most essential conservative property of the animal system, and the degree to which it exists must be regarded as, in some respects, a criterion of the amount of *vis medicatrix* possessed by the patient. We see no very decisive reason for pronouncing it a more fallacious guide than the orthodox custom of feeling the pulse. The only objection to it that occurs to us is that it may not be always free from hazard

This point being satisfactorily determined, the patient is straightway admitted into the mysteries of the cure. In the first place, he finds himself restricted to a peculiar diet. Every stimulant is absolutely prohibited, from brandy and claret, to mustard and pepper; so, also, are most of the luxuries imported from foreign parts, such as tea, coffee, and every kind of spice. The meals consist of three—breakfast at eight, dinner at one, and supper at seven or eight o'clock. For breakfast, cold milk is the beverage, and bread and butter its only substantial companions. At dinner, there is no other restriction than those above named. Supper is a repetition of breakfast, with the occasional addition of preserved fruit or potatoes. Throughout the day, no warm beverage whatever is permitted, and much of the food is brought to table considerably cooled. As some compensation for these mrnifold deprivations, the patient is allowed to gratify his appetite with every reasonable variety, and a free abundance of substantial and nutritious food. He finds it a maxim that generous diet will promote his recovery, the treatment being responsible for preventing surfeit. He no longer finds an embargo laid on fruit and vegetables, and is not expected to dine seven days in the week off dry bread and mutton chops. So that, on the whole, there is perhaps about an equal amount of indulgence and restriction, as respects diet, to a patient coming to the Graeffenberg rules from those of some fashionable physician in London.

In the next place, the majority of patients are directed to enter upon a course of water-drinking, the quantity of water

varying from five or six to thirty or forty tumblers in twenty-four hours. A large portion of this is taken before breakfast, the rest at suitable periods after meals, so as not to interfere with digestion, with frequently a glass or two the last thing at night. Exercise is generally advised at the time of water-drinking, except when this accompanies some other process of treatment incompatible with it.

A third rule insisted on is, that every patieet shall take a large amount of exercise during the day. This is, to some degree, indispensable after the cold baths, as a means of procuring the necessary reaction. Walking in the open air is the mode generally selected, when possible. In case of bad weather, or lameness, other plans are contrived; such as gymnastics, sawing or chopping wood, &c. As a general rule, every patient is required to take a long walk before breakfast. It is a *vexata quæstio*, we believe, among hydropathists, as among doctors, whether the patients should rest or walk immediately after a meal; but the water-doctors generally incline to advise very gentle exercise at such times; and, we believe, properly. The well-known experiments on greyhounds, and such other convincing facts, are counterbalanced, to say the least, by the habits of the working man, who proceeds to his labor as soon as he has swallowed his dinner, and rarely suffers from doing so.

After these preliminaries, and the case being pronounced suitable for the treatment, the next morning witnesses the patient's initiation into more active preceedings. At an early hour of the morning, varying according to the time required for the operation about to be undergone, a bath attendant enters with the formidable machinery for the administration of a rubbing with a wet sheet, a packing in the dry blanket, or a packing in the wet sheet. The first of these processes consists of throwing a wet sheet over the whole person, and applying upon it active friction of a few minutes' duration. A glow is thus excited. The patient then dresses, takes his water, and sets forth upon his morning's walk. The second of the above three operations requires the patient to be enveloped in several blankets, with perhaps the superincumbence of a large feather pillow, until free perspiration is excited, which generally requires a period of about three hours. When the perspiration has continued the prescribed time (from fifteen minutes to an hour, or more,) the patient is subjected to some kind of cold bath, either by the wet sheet, as just described, by pouring water over the person from pails or watering pots, or by taking a plunge bath. This being followed by

friction and water drinking, the morning's proceedings are concluded by exercise. Packing in the wet sheet is similar to the foregoing, with the addition, next the skin, of a sheet wrung out of cold water, It is generally of shorter duration, as forty-five minutes or an hour, the object being to excite a glow, instead of perspiration. It is followed by cold bathing, as just described. During the packing, in both instances, some glasses of cold water are imbibed through a tube.

At other parts of the day, other portions of the treatment are applied, such as the sitz-bath, the douche, the shower-bath, head-bath, foot-bath, &c.

The sitz-bath is a tub of cold water, in which the patient sits for a period varying from a few minutes to an hour, or even longer, using constant friction to the abdominal region. The other baths mentioned in this paragraph need no description. These, as well as the former processes, are sometimes repeated during the day. In certain cases the day's proceedings commence with some of them, in place of those previously mentioned. A rubbing with the wet sheet is frequently employed before getting into bed at night.

In fever, from whatever source, the patient is enveloped in a succession of wet sheets, renewed as often as they become warm, for a period varying with the intensity of the case—say, from 30 minutes to 5 or six hours. In other similar cases, cold immersion or affusion is employed with the same view—viz: to reduce the morbid heat of the system.

The *umschalge*, or compress, is an essential and seldom-omitted part of the treatment. It is a cloth, well wetted with cold water, applied to the surface nearest the supposed seat of the disease, securely covered with a dry cloth, and changed as often as it becomes dry during the day. It is sometimes covered with a layer of oiled silk, which, by impeding evaporation, prevents the inconvenience of frequent change. This compress speedily becomes warm, and remains so until dry. It is termed a heating or stimulating bandage. In cases of superficial inflammation it is more frequently changed, so as to be kept cold, whereby its effect is just the reverse, being then a local antiphlogistic.

In other establishments the sweating has been effected by other means than the simple envelopment of Preissnitz, as by the vapor bath, or a chamber highly heated by a stove. We have heard of a temperature of 180°, and even that of 198° Fahrenheit, being employed for this purpose. The blankets used by Preissnitz are very bad conductors of caloric, therefore they cause the heat given off by the body to be accumu-

lated around its surface, by the lengthened influence of which the sudorific action is effected. This process differs in no other manner than in degree and rapidity of effect from exposing the same surface to heat of any other origin. The animal heat, when once evolved, becomes a quality of the surrounding atmosphere. Being kept in contact with the body by blankets, it constitutes an artificial elevation of temperature, and nothing more. Therefore, in cases where active sweating is required, we can suppose no disadvantage to result from using other kinds of artificial heat, and can easily imagine advantages in a higher temperature than that attainable from animal heat alone. But we would limit this remark to dry heat. Aqueous vapor, by a well known law, impedes evaporation, and would therefore restrict the full completion of the sudorific process. For this reason it is used to prevent plants from parting with their moisture in hot-houses. For the same reason it should *not* be used when the intention is to promote the removal of moisture, or to promote perspiration.

A point uniformly insisted on by Preissnitz is, that his patients should abstain from wearing flannel next the skin. When we consider how generally the use of this article of clothing has been advised by physicians and adopted by invalids, especially in this country, we can easily conceive that strong prejudices will exist in the minds of patients against relinquishing it. Yet it appears to be almost universally discarded by hydropathists, and, as far as we have learnt, without any mischievous consequences.

Another maxim of Preissnitz is, that his patients are never to take any kind of drug. It should be remarked that, not being licensed to practice medicine, it would be illegal for him to administer drugs. So that it does not follow, from his disuse of them, that he himself would be opposed to their use *in all cases*, much less that their use is in any way *inconsistent* with his practice. His medical disciples, not being similarly restricted, so far as we can learn, usually employ drugs occasionally, though sparingly.

Such is hydropathy, in which the following points are worthy of note: First, that all stimulants from internal parts are withdrawn; and thus the system is at once delivered from some of the most fruitful causes of disease. No alcoholic or other stimulating drinks are allowed, and the nervous system, shattered by the excesses so incident to civilized society, is per-

mitted to regain its tone. Secondly, the system of diet enforced is such as other practitioners seldom venture to prescribe. In these circumstances we find an explanation of many of the cures of hydropathy so much vaunted. The novelist, Bulwer, worn out by a life of dissipation and mental labor, having failed to regain his health amid the excitements of his city life, went to the country, submitted to the regimen of the "water-cure," and returned to London well. To him it appeared something wonderful; so marvellous, that he must forthwith give his experience to the world; but to the physician there appeared nothing wonderful about it, except that a man of reputed sense could fail to see in his altered mode of life the cause of his cure.

A third, and certainly important, principle of hydropathic treatment is, that almost all its measures are addressed to the surface. Most physicians allow, that in our practice we are too apt to neglect the skin. Hydropathy is guilty of no such neglect. Fourthly, this system enforces a method of most energetic general and local counter-irritation; and in addition to this, the use of cold water is one of the surest modes of reducing artificial excitement, as physicians have generally understood, at least since the time of Currie. Finally, the application of cold water to the body is well known to be tonic; withal, exercise is enjoined.

Do we not find in these influences the "salt" which, thus far, has saved the system of Preissnitz? Have we not in this enumeration causes enough to explain all the cures which have resulted from hydropathy, supposing them to have been as numerous as the advocates of the system pretend they have been? Admitting this, it by no means follows that hydropathy, as a system, is to be countenanced. As practiced now, it is a system of arrant quackery; but that affords no good reason why the profession should not profit by the lessons it has taught. These superstitions will arise in medicine; in one age they come as *metallic tractors;* in a more remote one they took the shape of the *royal touch;* again it was *mesmerism;* now it is *hydropathy.* We had as well look these un-

welcome intruders in the face, and weigh impartially their merits, if, perchance, they be found to possess any. If they are wholly destitute of truth—if there be no soul in them at all—they will soon die and vanish out of sight, and there is no need that we should assail them. If there be any thing in them that will avail us in our contests with disease, then "why should the devil have the good tunes to himself?" Certainly, scientific physicians can make a better application of water than the ignorant water-doctors; and after all, to adopt the language of the author of the tract before us, "the difference between quacks and respectable practitioners is one, not so much of remedies used, as of skill and honesty in using them."

ART. IX.—*A Practical Treatise on the Diseases of Children.* By JAMES COLEY, M.D., Member of the Royal College of Physicians in London, &c.; Author of a Treatise on the Remittent Fever of Infants, &c,; and of Essays on Phlegmonous Erysipelas, &c. 8vo. pp. 414. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1840.

The catalogue of diseases treated of in this volume is a very formidable one; we have taken the pains to count the list, and find that it embraces two hundred and thirty-three affections, medical and surgical. As we have heretofore stated in the author's own words, it was the intention of Dr. Coley to give to the profession "a comprehensive work." He has studied to include in it all the maladies and casualties incident to infancy and childhood. Beginning with the diseases connected with the separation of the umbilical cord, he omits no affection, however trivial it may be, by which life in its first stages is endangered, or the comeliness of the person impaired. The minuteness of his subdivisions may appear to the reader, at first, to be carried to an unnecessary extent, and as being tedious and perplexing, but the young practitioner, making out

his diagnosis at the bed-side, will not object to the work on this account. Such an one requires a guide, which will enable him to recognise all the forms of disease which show themselves on the skin, in the eyes, the eye-lids, the mouths, of children, many of which, the experience of every physician soon teaches him, are of a character greatly to embarrass the novice in his profession, We do not say that even with the aid of this volume, which enumerates so fully the disorders of children, the young practitioner, without the advantages of having seen disease itself, will always be able to attain a correct diagnosis. This, we presume, is hardly to be expected from books alone. Disease must be seen to be understood; but it is not in the power of all students to see a great variety of diseases before entering upon the practice, and to such as have not had access to hospitals, or been much in the sick chamber, such works as this are almost indispensable.

The author is brief upon most of the points embraced in his volume, disposing, for example, of the diseases under his first head, in five pages, and of the affections of the eye in about five times as many. To imperforate anus he devotes something less than a page, remarking that, fortunately, it is a rare defect. The opening may be partially closed, or it may be "obstructed entirely by a membrane extending over the orifice, and projecting;" in either of which cases the procedure necessary is easy and successful, a slight operation removing the obstruction. But in other instances the rectum terminates at a distance of several inches from the situation in which the anus ought to be found; in some it terminates in the bladder or the vagina; and in others it is altogether wanting. We once saw a case in which the bowel had its termination in the vagina, and we made two unsuccessful attempts to extend it. The first operation was performed a few months after the birth of the child; the incision was slight. We undertook a second when the child was about a year old, and after it had begun to experience irritation and trouble from the passage of the hardening feces. This time we pushed the incision to the extent of two inches, but without finding the rec-

tum. The child ultimately died, and we should not be disposed to enter upon the operation again.

Purulent ophthalmia is the earliest of the diseases with which the eyes of infants are affected. It commences, according to our author, about the third day after birth. As the inflammation progresses it is accompanied by extreme intolerance of light, and if not retarded by proper remedies the conjunctiva assumes a billious appearance, resembling inflammation in the mucous coat of the intestines.

The effects produced upon the cornea are various. There may be effusion of lymph between its superficial layers constituting temporary blindness; or ulceration of a destructive character may creep round its margin, and terminate in gangrene or mortification, and incurable opacity; during which process the lens may escape; or ulceration may present itself at one spot either through the mucous or serous envelope of the cornea, and terminate in protosis or staphyloma; or ramollissement or softening of the cornea may occur, followed by an aperture through which the humors of the eye may escape; or suppuration of the globe may be the final result. This softening of the cornea, it must be observed, however, is not peculiar to this disease, as it was produced by an experiment made by Magendie on a dog, which he had confined exclusively to the use of sugar for food, whereby it was reduced to extreme exhaustion and marasmus; and Dr. C. M. Billard has seen many infants in the Foundling Hospital at Paris afflicted with softening of the cornea and complete marasmus by long-continued gastro-intestinal disease, and had no palpebral inflammation. I may also add that softening of the cornea has appeared in my practice in the adult as well as in infants as a consequence of purulent ophthalmy, when the patient has been subject to derangement in the chylopoietic viscera, which in this disease as well as in iritis, it will be found essentially necessary to modify or remove. Mr. Middlemore has once seen dropsy of the eye follow from this form of purulent ophthalmy. As results of this disease the iris may become closed, the pupil may be rendered angular, the iris may form adhesions with the lens or cornea, or be projected through an ulcer in the cornea protosis of the iris.

It is well known that children born of women laboring un-

der gonorrhœa are pretty sure of becoming affected with this ophthalmia, and the prevalent opinion has been, that the affection is produced in every case by acrid matters applied to the eye at the time of birth. The author combats this idea, and it appears to us with propriety.

This conjecture is not altogether supported by facts, as the disease has been known to occur and pass through all its stages and end in opaque cornea *in utero;* and congenital opacity has been observed to disappear gradually by absorption after birth. There can be no doubt that gonorrhœa and other acrid discharges are frequent causes; but, as far as my own observation has gone, I have been satisfied that the disease has originated from exposure to cold, and especially an easterly wind, more frequently than from any other cause; and my belief that such is the most common origin of the disease is confirmed by the extensive experience of Langenbeck of Vienna, who remarks that the children in the Foundling Hospital in that city who are exposed to cold, and nearly dead from starvation when admitted, are much more frequently attacked with purulent ophthalmy than those who have the advantage of maternal care in the Lying-in-Hospital, whose mothers are women of the lowest description and almost invariably laboring under gonorrhœa.

Hurtletoup attributes the frequency of purulent ophthalmy at the Foundling Hospital in Paris to the crowding together a great number of infants in badly ventilated wards, where, he may have added, they are left at that helpless age with only one or two attendants in each apartment. My own experience proves that the purulent ophthalmy of infants occurs during the month of May, when the easterly wind and erysipelas prevail in the proportion of 7 to 8 compared with all the other months in the year.

In the commencement of the disease the usual mild washes will generally be sufficient to effect a cure. One composed of sulphate of zinc and distilled water, in the proportion of two grains of the former to an ounce of the latter, may be employed. It is proper also to give the infant a few doses of carbonate of magnesia, and if fever attend, calomel in small doses should be administered. No other medicine acts so benignly on the systems of children as calomel. Sometimes the oph-

thalmia resists these measures, when the author recommends an injection of the nitrate of silver, in the proportion of from five to ten grains to the ounce of water.

The injection in every instance should be introduced frequently every day by means of a glass or bone syringe, passed under and along the upper eyelid at the outer angle. When the granular condition of the mucous membrane obstinately persists, the morbid surface should be rubbed daily with sulphate of copper; but it must be observed that such a state of that membrane would not be met with if local depletion be timely adopted. Hence, at the commencement of a severe attack, leeches should be applied to the upper eyelids; but after the acute stage has passed by, stimulants will be found the best applications. These opposite modes of treatment are rendered necessary by the state in which the disease is found when the practitioner is consulted, and therefore must not mislead the inexperienced into a belief that every case can be safely treated alone by stimulants. The nature of the disease is the same as that of purulent ophthalmy in adults, which it is well known cannot be safely treated, when severe, without active and decided sanguineous depletion in the commencement. When suppuration of the globe takes place, the patient experiences great suffering, which should be relieved by puncturing the cornea. Mr. Walker, of Manchester, is a strenuous advocate for the exclusively stimulant treatment. He says the best remedy, especially to prevent ulceration of the cornea, is the application of nitrate of silver in substance to the lining membrane of the palpebræ. His practice consists in applying the caustic not only to the inner surface of the lids, but to the chemosed, conjunctival covering of the front of the globe, and holding it there a few seconds. As the disease advances, he states that the facility of its application increases. He never uses bleeding of any kind, and repeats the caustic once or twice a-day, according to the state of the eye. When the ulceration has taken place he applies it twice a-day, and says little else is necessary.

Ulceration of the cornea is frequently the consequence of this inflammation of the eye, and, if not arrested, leads to a destitution of the organ. The author prescribes the following treatment:

While any considerable vascularity and extreme photophoby exist, it will be proper to apply leeches immediately below the lower eyelid, or to the temple. After the inflammation has been modified, the ulcer should be touched daily, or every second day, with nitrate of silver scraped to a point, and a little oil should be afterwards dropped between the eyelids. During chemosis from conjunctival inflammation, the vessels of the cornea are strangled, and Mr. Tyrrel has discovered that radiated incisions, dividing the cornea from the centre to the sclerotic, immediately stops the ulcerating and sloughing process. Care must be taken to let the incisions of the membrane pass between the recti muscles to avoid the large vessels. For the cure of ulceration of the cornea and incipient pannus, M. Ammon performs the following operation with a remarkably successful result; a transverse fold is made in the upper lid, and the base of this fold is pierced by a curved needle with two threads of cotton, which form a seton. The ends of this seton are then to be fixed on the forehead by means of a piece of diachylon, the eyelid being so sufficiently raised as not to touch the globe. This suspension of the eyelids has a double influence. It acts as a seton on one hand, and on the other preserves the eye from the contact of the inner surface of the eyelid, which is often granular, and produces and continues the inflammation. There is one objection to this operation, which is, that it excites erysipelas of the lids.

Some of the other affections of the eye treated of in this connexion, are opacity, and hernia and fistula of the cornea, pustular and scrofulous ophthalmia, and corneitis. Of the latter disease the author gives an extremely satisfactory account. It is one which is often neglected, but one in which the resources of our art are very great to repair the injury. We subjoin all that Dr. Coley says on the subject:

The cornea is composed of an outer mucous membrane, lamenæ, or layers, constituting its proper, horny structure, cellular membrane connecting these laminæ and a serous membrane, which secretes the aqueous humor. Acute inflammation commences with some intolerance of light and a cloudiness in the cornea, which are followed by a pink zone surrounding it, composed of minute blood vessels. At length a pain in the forehead, like neuralgia, comes on, and the cornea

assumes a milk-white appearance. When the inflammation is confined to one portion of the cornea, there is a corresponding preponderance of the small pink vessels on its margin, as in some cases of iritis. Instead of the milky appearance, which is produced by the effusion of lymph between the laminæ, we sometimes find the cornea of a dark red color, approaching to purple, completely obscuring the iris, and becoming unnaturally prominent. This condition has appeared to me to proceed from the rupture of the congested blood vessels, and the extravasation of the blood globules destined to undergo the change, which takes place in the formation of pus. When the disease is more advanced, we find purulent matter in the place of the bloody appearance, which, when active means are employed, become absorbed; or it may burst externally, or into the anterior chamber, constituting hypopion. Inflammation of the cornea is sometimes partial, in which case some portion of the iris may be obscurely discovered. Children laboring under this disease are generally supposed to have incurable blindness, until the nature of the case is explained by some one conversant with ophthalmic surgery; for, although the inflammation is acute in the first instance, relief is seldom applied for by the poor and ignorant until temporary loss of sight has taken place. In some cases, on minute inspection, we perceive red vessels ramifying through the cornea, before vision is suspended by the deposit of lymph; and on viewing the surface of the cornea with a microscope we perceive numerous depression or cup-like cavities, or ulcers presenting a glassy appearance.

Treatment.—The most active measures are required to prevent suppuration, ulceration, softening or mortification. The patient should be well purged, and afterwards repeatedly cupped on the temple, and be put on a mercurial course, so as to keep up a decided action on the gums until the symptoms have disappeared. These cases are tedious, but there are none in the practice of ophthalmic surgery, which terminate in so satisfactory a manner when properly treated.

Case: November 1, 1837.—Miss G., aged ten years, was brought to me totally blind. I found the blindness had existed two months, and was occasioned by effusion of lymph within the posterior layers of the cornea, which quite obscured the pupil in each eye. The front layers of the cornea quite transparent. A slight vascularity of the cornea, but no zone was present. Leeches had in vain been repeatedly applied. I prescribed cupping on the temple, and a grain and a half of chloride of mercury once in four hours. On the 4th,

a little sight was restored in the left eye. The front of the cornea projected particularly at the margin, as if the aqueous humor was too abundant. As the patient objected to the medicine in the form of powder, I prescribed four grains of pil. hydrargyri once in four hours. On the 6th, the sight in the right eye was improved, and the cornea projected in the same manner as that of the left eye. She was now directed to take ten grains of pil. hydrarg. twice a day. On the 7th the mouth became sore, and the sight improved in both eyes. From this time the lymph became rapidly absorbed, and by the repetition of pil. hydrarg. twice a day during a few weeks, the whole of the lymph disappeared, and the sight was perfectly restored.

Case: 1838.—William Head, aged twelve years, had acute inflammation in the cornea three months, accompanied with effusion of lymph, which obscured the iris and obstructed the rays of light; great intolerance of light, and a pink zone round the cornea. I directed the temple to be cupped, and the patient to take ten grains of pil. hydrarg. twice a day. On the 10th, the cupping was repeated, the pain of which he had complained being unrelieved. On the 24th, the intolerance of light was diminished, but the pain and zone round the cornea remained; the cupping was repeated; the mouth was sore. On the 1st July, the inflammation was nearly gone, and the sight almost restored; and in the course of another week every symptom of the disease disappeared.

Case: Nov. 16, 1841.—A young man, aged 18 years, had suffered with complete blindness five months, occasioned by corneitis. The effusion between the layers of the cornea was of a dark, purple color. He had intolerance of light and severe pain in the eyes. I prescribed ten grains of pil. hydrarg. twice a day. On the 26th, the mouth became sore; the front of the cornea was transparent, while the posterior part was completely obscured by a bloody effusion, which had completely interrupted the sight; the pain had entirely subsided. On the 5th of December, the lymph became straw-colored, and the sight was beginning to return; the mouth was very sore. On the 12th, the bloody and purulent appearance had left every portion of the cornea, and the intolerance of light had subsided; the pupil in one eye became now distinctly perceptible, and there was only a thin layer of lymph left in the cornea of each eye. On the 19th, the cornea became quite clear on one side of each eye, and before the end of the month all appearance of inflammation and opacity had ceased.

A variety of corneitis, of a scrofulous character, is men-

tioned by writers. All I need to observe here is, that when the disease occurs in scrofulous children it is generally secondary; the inflammation having migrated from some other structure of the eye. It is also distinguished from simple corneitis by an increased projection of the cornea, occasioned by a redundant secretion of the aqueous humor. With respect to treatment, it may require some modification. If the patient is weak and pallid, and if the mercurial treatment appears to disagree, the disulphate of quina may be substituted.

To diseases of the skin our author devotes seventy-four pages. He adheres to the classification of Willian, which he esteems more convenient than the *natural system* lately proposed by Wilson. The idea of founding these maladies on the anatomy and physiology of the skin is an ingenious one, but Dr. Coley shows that it has not been carried out.

Gangrene of the mouth was first described by a Dutch surgeon about the beginning of the seventeenth century. In Holland the disease is known by the name of *water-kanker*. The title of gangrene was given to it by Van Swieten. It has repeatedly prevailed as an epidemic in various countries, in which form we have more than once heard of it in this country. Our author quotes a writer, named Poussail, who affirms "that in the United States of America, 72 out of 240 infants were attacked with gangrene of the mouth after remittent or intermittent fevers." He does not mention where this statement is published, and we are not sure that the writer meant the remark as general. If so, it is not true. He may have witnessed the disease in an epidemic form, in which so large a proportion of children convalescing from fever suffered with gangrene of the mouth; but no such result is common, nor has it been so at any time in this country. Dr. Coley gives the following account of this rare affection:

This disease is almost peculiar to infants who are feeble at birth, or children whose health has been deteriorated by a moist and unwholesome atmosphere, imperfect nutrition, or some antecedent disease, as scarlet fever, measles, small-pox, &c. It first appears with a swelling on the cheek, the central

part of which is much harder than the circumference, and marked by a dark red spot, the skin having an appearance like wax, or as if it were oiled. The swelling, which is seated in the cellular membrane, extends to and distends the upper eyelid, and resembles œdema. At this time the patient looks pale, his breath is offensive, he has but little fever, is unhappy, and seldom complains of any pain in the cheek or mouth. An ulceration forms in the middle of the cheek, on the inside of the mouth, or on the membrane covering the gum or lip, and is covered with a putrid, grey, fetid slough of a characteristic odor. This ulcer soon assumes a purple color, and the parts mortify. The child at one time is engaged with surrounding objects, at others, lies in bed indifferent to everything, without strength or energy. He appears bloated on one side of his face, and shrunk and miserable on the other; his bloody or blackish saliva flows through his mouth, and he is constantly asking for food. which he devours with avidity, together with the putrid sloughs separated from the gangrenous parts. His intellect is clear, except during the night, when he is occasionally delirious. Some time between the third and sixth day, the most hard and prominent part of the cheek assumes a purple color, and eschar forms, which is extended from day to day, so that it ultimately occupies, the whole of one side of the face, extending even to the neck. Meantime the mucous membrane is completely destroyed down to the bones. In this state the appearance of the child is hideous; his appetite continuing voracious, he is constantly snatching the gangrenous shreds into the mouth, while he allows the offensive and blackish sanies to flow upon him from all sides. After a while his appearance becomes still more repulsive, when the eschars are partly separated and expose an opening in the cheek, through which may be seen the bare and tottering teeth, and the jaw-bones black and denuded. The morbid mass is now still more putrid and repulsive, and the child, burning with thirst, drinks with avidity, and continues to take food voraciously, although quite exhausted. He has no sickness, but has generally toward the last a troublesome purging, accompanied with rapid emaciation. His pulse becomes small and insensible, and death supervenes without a struggle.

The remote cause of this rare disease appears to consist of a degraded condition of the general health, and particularly an enfeebled state of the capillary circulation, induced by some previous inflammatory or other exhausting disease, which has reduced the constitutional vigor. Of these antecedent diseases the most frequent is measles; the next in frequency is

that cachectic state, which is found in the children of the poor, who are exposed to a humid and unhealthy atmosphere, and are deprived of proper nutriment and clothing. The feeble state in which children are left by severe attacks of any other of the eruptive fevers, equally with the condition I have just mentioned, predisposes them to inflammatory diseases, by depriving the small vessels, which circulate so freely in the cellular membrane, of their natural contractile power. Hence, when the circulation in the cellular structure, interposed between the mucous and cutaneous membranes of the upper cheek or lip, is retarded by any cause, the vessels, having lost their proper contractile force, which is designed by nature to overcome accidental interruptions, enlarge and permit the blood to remain stagnant. In proportion to the resistance thus presented to the perfect circulation in the part affected, is the excitement or vis a tergo in the surrounding capillary arteries; an inordinate activity is instinctively commenced in their vessels, for the purpose of attempting to overcome the obstruction in the morbid part; and, as the transmission of their contents is impossible through the ramifications already deprived of their vitality, or incapable of obeying the natural stimulus of the blood, the serous part of that fluid is forced through their minute extremities into the adjoining cellular membrane, which, from its increasing infiltration, becomes distended and indurated, and presents on the out-stretched skin the pale, lymphatic appearance before described as partly characteristic of the disease. When the serous membranes covering the abdominal viscera, or the heart, &c., become the seat of vascular obstruction, and inflammation follows, the excited and distended vessels relieve themselves by discharging serum or coagulable lymph from the free surfaces, while the neighboring cellular structure, with which their adherent portion is connected, comparatively escape the force and pressure of the opposite arterial excitation. Until the process of infiltration within the lip or cheek is removed by early and proper treatment, all the small vessels near the original seat of the disease become successively strangled, as it were, by the increasing compression of the serum, which they have themselves effused; and thus death and putridity extend their destructive and offensive influence.

It will be interesting to know the most approved methods of treating gangrene of the mouth. The different modes are mentioned in the annexed quotation:

A disease so rapidly fatal as gangrene of the mouth, requires the most prompt and vigorous remedies, otherwise the patient will speedily fall into an incurable state. The utility and necessity of stimulating and escharotic applications will appear, from what I have said, to have been long ago obvious to all who have had much experience with this formidable malady. The principle on which they act so beneficially, appears to me to be that of stimulating into contraction the diluted vessels surrounding the dead parts, and still possessing vitality. The consequence of this contraction is the immediate cessation of that rapid process of inflammation, which, as I have explained before, is produced and extended by defect of tone or nervous energy in the capillary circulation. In slight cases it may be sufficient to rub off, with diluted hydrochloric acid, the muguet or ash-colored slough found on the mucous membrane; but when the black spot, apparent on the outside, which from the cessation of the circulation and the death of the part, begins to increase, a crucial incision should be made through it down to the living parts, and undiluted nitric or hydrochloric acid applied by means of lint fastened to a glass rod. After making the incision, Billard advises the application of butter of antimony, or the actual cautery, which was extolled by Bacon above all other remedies. Those who have witnessed the astonishing effect of undiluted nitric acid in arresting the destructive process of sloughing phagedæna, recommended by Mr. Welbank in a paper on the subject in the "Medico-Chirurgical Transactions," will have no hesitation in adopting this bold and decided practice, which has now, with different modifications, received the sanction of experience. Should the first application of the escharotic fail, it should be repeated daily, until the sloughing process has subsided. After each operation, the only other external remedies required will be at first an evaporating bread and water poultice, until the discharge has begun to subside, and the dead parts have exfoliated, and afterwards dossils of lint, or soft linen rag, moistened with warm water, which may be continued until the mutilated parts have been cicatrised.

Little reliance must be placed on internal remedies, notwithstanding it is the belief with some writers, particularly Siebert, that it is the result of a scorbutic diathesis. Should any symptoms of land scurvy have preceded the attack, it will be necessary, in addition to nourishing diet, to prescribe some preparation of bark, with some mineral and vegetable acid. It was the opinion of Dr. Underwood that the diarrhœa, which appears towards the termination of the disease, is occasioned by the offensive matter constantly swallowed by

the patient. This symptom may be relieved by opium; and should the child recover, change of air may be found advisable.

The author has some exceedingly interesting remarks in relation to membranaceous sore throat, from which we make a few quotations. By the French the disease is termed *dyphthorite:*

It is confined to an inflammation of the pharynx, extending to the tonsils, which terminates in the formation of a false membrane. Aretæus was the earliest writer on the subject of angina gangrenosa, which he described under the titles of the Egyptian and Syriac ulcer. He divided the disease into two species, one in which the artificial membranes are small and white, and the other in which these productions were large, depressed, and exhaled a fetid smell, constituting the angina gangrenosa. About the year 1337, the latter disease appeared as an epidemic in Holland, and in other parts of Europe, and re-appeared in Spain at the commencement of the seventeenth century, and was described by Mercatus, Villareal, Nunnez, and other Spanish writes, as affecting the tonsils, extending into the air-passages, and producing death by suffocation, whence it received the name of *garotillo.* In 1818 the epidemic showed itself at Naples, where it became as fatal as in Spain, commencing its attack in the pharynx, producing dysphagia, and terminating its career by spreading to the larynx, and exciting suffocation, as if the patient had been strangled. Seventeen years after this period the disease reached Kingston, in North America, where it was more particularly confined to infants. From 1743 to 1748, this epidemic raged in Paris, according to the reports of it left us by Malonin and Chomel; and, a short time afterwards, Fothergill and Stow published accounts of an epidemic, malignant, sore throat, which prevailed in England, which was sometimes secondary, and in connexion with scarlatina, and at others primitive, and resembling, from the description of Stow, the disease under consideration. In 1671, Bard, of New York, published his sentiments on this subject, which partly corresponded with those of Bretonneau, who considered the disease to be analogous in its nature with that of croup, and the false membrane to be the product of a concretion. In proportion as the real nature of this disease has been unfolded by modern researches, it has been disarmed of much of its supposed malignity, and brought more under the control of art. It begins

with inflammation of the mucous membrane of the soft palate, tonsils, and pharynx, terminating in the secretion of a false membrane, *without any ulceration or destruction of the true skin.* As the inflammation advances, it is apt to extend to the larynx, and to produce the symptoms and fatal results of croup. In one form of the disease, gangrene or sloughing of the inflamed parts take place, particularly in children of feeble constitution. The attack begins with a little fever, attended with a slight difficulty in swallowing. On inspecting the throat, the tonsils are perceived to be swollen, and small portions of white or yellowish lymph may be seen, resembling muguet, on different parts of the soft palate and pharynx. After a short time these deposits of lymph assume a grey color, and acquire an offensive odor; and a copious discharge of saliva flows from the corners of the mouth. At this period the cervical glands become inflamed and swollen. At length the grey lymph, constituting the false membrane, either falls off in a mass, and is ejected through the mouth, or it is separated in fragments and discharged by degrees, and is often reproduced. The appetite is little affected, and neither vomiting nor diarrhœa is present, unless the mucous coats of the stomach and bowels are the seats of the dyphtheritic production. When recovery commences, the false membranes cease to be reproduced, and the surface of the mucous membrane, by which they had been secreted, presents a red, excoriated aspect, without any degree of actual ulceration; the swelling in the cervical glands subsides; and, at the end of eight or ten days, recovery follows. In the more malignant cases, the disease extends into the air-passages, producing symptoms of laryngeal and tracheal inflammation. First hoarseness is observed; then a harsh, suffocating cough, accompanied with a croupy sound and an anxious expression, followed by a pale, cadaverous countenance, with the eyes sunk in their sockets; hurried and feeble pulse, cold skin; and terminating, when unrelieved, in irresistible stupor, a purple color of the lips, face, and extremities, and speedy death. When the bronchial tubes are visited by this disease, the cough becomes more frequent, the breathing more rapid, and accompanied with a mucous or rattling sound, and the patient sometimes expectorates shreds or tubular portions of lymph presenting a membranous appearance. This is frequently the sequel of laryngeal inflammation, and after the latter has been relieved, disappoints our hopes by a rapidly fatal termination.

Here, for want of room, we must close our notices of this excellent work.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Iron in Cachexia.—Iron is an agent almost exclusively employed in the treatment of cachexia, and its use has been in part recommended on the ground of the deficiency of its normal proportion in the blood. It is believed that the administration of ferruginous preparations may restore the normal quantity of the metal to this fluid, and on this ground the most soluble preparations are recommended, and, according to M. Mialhe, those chiefly should be chosen which are susceptible of decomposition by the alkalis of the blood.

M. Beau doubts the correctness of this view of the direct agency of iron, although the benefit of the substance is incontestible. The iron of the blood is contained only in its globules, and there will be more or less of it as these globules prevail. To cure hydræmia, therefore, and augment the proportion of globules, it can never suffice to introduce one element of the globule only. The diminished proportion of globules is maintained by the defective condition of the digestive functions, and iron acts only by restoring these to their integrity. In fact we daily witness cases of chlorosis treated by iron in its most soluble forms without any success whatever—the digestive organs in such cases being in a condition not admitting of their benefitting by its agency. The iron is abundantly absorbed into the blood, and yet the globule is not constituted. On the other hand, when the metal acts beneficially, the earliest effect it produces is upon the digestive organs. We see other patients again recover under the use of aloes, change of air, or the removal of moral causes, &c., without ever taking iron at all, or after abandoning it as use-

less—the dyspepsia having yielded to other means after the iron had failed in relieving it. Our primary indication then must be to attack *the cause which produces the dyspepsia.*. M. Trousseau has already protested against this indiscriminate treatment of the cachexiæ by iron; and, in fact, we can only re-constitute the blood by re-establishing the digestive functions, and removing causes which operate injuriously upon them. It is not by the direct agency of this medicine, but by the greater amount of aliment it enables the digestive organs to master, that iron is useful; and cachexia induced by mere hæmorrhage may be at once removed by the rapid administration of aliment alone.—*Medico. Chir. Rev.*

Lithotomy and Lithotrity.—Until very lately, patients applying to surgeons were constantly recommended to submit to the knife, in order to get rid of stone in the bladder, whatever might be the size of the concretion, or the state of the urinary organs. On the other hand, if he fell into the hands of the professed grinder, no matter what the peculiarities of his case, he was as certain to be subjected to the boring or hammering processes. Now that the merits of both operations are better understood and appreciated—some few surgeons having thought proper to turn their attention to this matter, and study and understand lithotrity as well as lithotomy—patients have a chance of being treated judiciously and conscientiously, and of having that proceeding resorted to which is adapted to their respective cases. I was not slow to adopt the operation of crushing, have always had a favorable impression of it, and have throughout used the same language regarding it, yet I have the credit of being an opponent to lithotrity. I have all along been, and am certainly still, opposed to the abuse of any one operation, by its indiscriminate employment in all cases, and by its being practised by those alone who know no other. It can be employed safely only by those who understand well the healthy anatomy of the urethra and bladder; who are acquainted with their sympathies, vital actions, and pathological changes; and who both understand, and are in the constant habit of treating derangement of their functions. The operation of lithotrity is applicable to patients above the age of puberty, when the symptoms have not endured very long, when the foreign body is as

certained to be about the size of the one sketched two pages back—measuring six or seven lines, or even more, perhaps, say a large as a chestnut;—when the bladder and urethra are in a tolerably healthy and normal condition—as indicated by the power to retain the urine comfortably for several hours, and to pass it in a tolerably free stream; and when the viscus admits of injection and a careful exploration.

The operation of lithotomy must yet continue to be performed on children, and on those of mature age who are so ill-informed or foolish as to permit the stone to attain an inordinate bulk. The concretions in young subjects are generally composed of a very dense substance. the oxalate of lime, in whole or in part; and the urethra is often so narrow as to preclude the application of instruments strong enough to reduce them to fragments. The reason for giving a preference to incision over crushing, when the stone is large, have already been given.

This favorable opinion of lithotrity was published in 1840, since when it has been confirmed and much strengthened by ample experience. Of late years, in point of fact, I have scarcely been obliged to have recourse to lithotomy at all in private practice. At the hospital, patients yet present themselves with large stones and bad bladders. Then lithotomy is both a less painful and much more safe operation, as already propounded. During the above period twenty-four patients have been cut, and all have recovered without accident; these patients have been of all ages, from two to eighty years of age, and some of them not over favorable subjects. So that, after all, there is not much to find fault with as regards this cruel and bloody 'operation' when carefully set about.

Liston's Practical Surgery.

The Cæsarian Operation considered in a Theological point of view.—Some months since a woman died in Brittany, being about six months advanced in pregnancy. The parish priest sent for a medical man to remove the child by the Cæsarian section, in order that it might be baptised, if still alive. Upon his refusing to do so, the priest sent for a *farrier* who removed a dead fœtus by the Cæsarian section. These facts being severely commented upon in some of the newspa-

pers, the minister published a reply in justification of his proceedings, stating that they were imperative upon him, in proof of which he quoted Bouvier's *Sacred Embryology*, which is a text-book of the church. This expressly orders the section to be made as speedily as possible, under all circumstances as regards the age, time, and mode of death, &c., and in respect to the person who is to be called upon, it says:—"No endeavor must be neglected to procure the services of a professional man. If this is impossible, a midwife, some other woman, a married man, or in case of urgency any one at hand must be resorted to, but *never a priest*, unless there is absolutely no other person who can be procured." When the medical man refused, the priest read these and other passages of M. Bouvier's work to the farrier, showing him the absolute necessity of proceeding with the operation.

A medical man, before resorting to the operation, has to satisfy himself—1, That the *woman is really dead;* 2, that the *child is alive;* and 3, that it is *viable.* This restricts obviously the operation within very narrow limits. The Church regards not the *viability* of the child, but the chance of its being alive, and therefore fitted for baptism. But the chances of error and danger that this rule gives rise to are obvious. Is the practitioner to submit to the dictates of the priest, and open the woman's body the instant she has yielded her last breath. Many there are who would hesitate to do so, and if the professional man delays in order to be certain that his patient is really dead, does it seem reasonable to allow persons utterly destitute of physiological knowledge to take upon themselves not only to judge of the propriety of the operation, but even its execution? This has been so strongly felt by some of the clergy themselves, even, that various contrivances have been thought of to dispense with the necessity of the operation, and yet confer the rite of baptism upon the infant. Thus, *vagino-uterine injections* have been advised, and quite recently, these have given rise to a learned discussion in the Academy of Medicine of Belgium. The validity of such a procedure has been admitted by high authorities of the church, so that, even according to its own showing, the necessity for the operation may be brought within very narrow limits. When, however, it is determined to practice the operation, this should be solely confided to professional men; for an apparent state of death during gestation, is of too frequent occurrence, and of too difficult detection, to allow of the interference of unskilful persons. When medical men are regularly consulted in these cases, they should bear in mind the

duties and obligations of their profession, and lend their assistance, when the rights of humanity, of which they are the natural guardians, do not oppose, to the accomplishment of the duties of religion, in the same manner as they are accustomed to do with regard to those of justice.—*Gaz. Medicale.* —*Med. Chir. Rev.*

M. Velpeau on Flexions and Engorgement of the Uterus.—A proof of how often the term *engorgement* has expressed an error of diagnosis is found in the fact that of late years, and in proportion to the progress of science, engorgements of the uterus become more and more rare, while the number of vicious flexions is augmented. I do not fear to state, that of fifty women reputed to have engorgement, forty five will be found upon examination to be suffering from some deviation from the normal position of the organ. How can we explain this error of diagnosis being committed by well educated practitioners? The reason is simple. The woman is examined in the recumbent posture, and the finger meets, in a certain direction of the neck, forwards if there be anteflexion, and backward if there be retroflexion, with a tumor of considerable size and sensible, which is declared to result from an engorgement. But the tumor is simply the body of the organ bent at a more or less obtuse angle, and sometimes at a right angle. We can easily assure ourselves of this, especially when, as is the case with most women who have borne children, the walls of the abdomen are neither tense nor thick. By gently depressing the hypogastrium, we may grasp the body of the womb between the two hands, and appreciate its volume as accurately as if we could see it. Engorgement is one of the least usual conditions of the organ that we meet with, and on the contrary the body of the organ is often found somewhat atrophied.

Accurate diagnosis, in consequence of the treatment it designates, is here of great importance; for when we have to do with a simple deviation we dispense with the use of means proper for resolving a tumefaction which does not exist, of debilitating remedies each more mischievous than the other, and with confining the patient for months in the recumbent posture. We order for her, moderate exercise, a substantial

and tonic regimen, antispasmodic, ferruginous drinks, saline baths, astringent vaginal injections, and lastly an abdominal bandage which may support the viscera, and prevent their weighing down the deviated organ.—*Gazette des Hopitaux.*—*Med. Chir. Rev.*

Mesmerism in India, and its Practical Applications in Surgery and Medicine. By James Esdaille, M. D., *Civil Assistant Surgeon, H. C. S., Bengal*—We have in a preceding article stated the reason why any amount of curative power which mesmerism may possess is not available to the profession; and we trust we shall not be deemed inconsistent in stating a case in which it may be resorted to, Most will acknowledge that, in certain individuals, a more or less prolonged insensibility may be induced by mesmeric procedures, and it is obvious, that the fact of this being so complete as to admit of the performance of surgical operations during its existence, and of surgeons availing themselves of such suspension of sensibility, says nothing *pro* or *con* concerning the remedial agency or the ultra pretensions of mesmerism. The same state has been induced by other means, such as injuries to the head, narcotics and intoxication, during which unfelt operations have been completed. The questions then we have to decide are whether mesmerism can induce such sufficient insensibility, and whether the patient's eventually well-doing is at all compromised by the operation being undertaken under such circumstances. Dr. Esdaille adduces seventy-three instances of painless operations of varying degrees of severity, from the introduction of a seton to amputation of an arm or the tearing of a toe-nail, performed upon subjects who could have no inducement, and scarcely intelligence enough, to enter into any plan of collusion, in the presence of very numerous witnesses. Without agreeing with the author in the general favorable estimate he gives of mesmerism, we may state that we believe the cases we have alluded to are entitled to our belief, and that the subject is one of such vast importance as to call for a searching investigation by the authorities at home. This claim of mesmerism admits of easy testing, and we repeat, if its validity is proved, that none of the various monstrous pretensions of this art will be brought in any-

wise nearer admission, while a vast boon will have been secured to suffering mankind.—*Medico. Chir. Rev.*

Insensibility during Surgical Operations produced by Inhalation. By Henry J. Bigelow, M. D.—It may be interesting to know how far medical inhalation has been previously employed. Medical inhalation has been often directed to the amelioration of various pulmonary affections, with indifferent success. Instruments called *inhalers* were employed long ago by Mudge, Gardiner and Darwin, and the apparatus fitted up by Dr. Beddoss and Mr. James Watt, for respiring various gases, has given birth to some octavo volumes. More recently Sir Charles Scudamore has advocated the inhalation of iodine and conium in phthisis, and the vapor of tar has been often inhaled in the same disease. The effects of stramonium, thus administered, have been noticed by Sigmond.

The inhalation of the ethers has been recommended in various maladies, among which may be mentioned phthisis and asthma. "On sait que la respiration de l'ether sulfurique calme souvent les accidents nerveux de certains croup," is from the Dict. des Sc. Med.; but I find that mention of the inhalation of this agent is usually coupled with a caution against its abuse, grounded apparently upon two or three cases, quoted and re-quoted. Of these the first is from Brande's Journal of Science, where it is thus reported: "By imprudent respiration of sulphuric ether, a gentleman was thrown into a very lethargic state which continued from one to three hours, with occasional intermissions and great depression of spirits—the pulse being for many days so low that considerable fears were entertained for his life." Christison quotes the following from the Midland Med. and Surg. Journal, to prove that nitric ether in vapor is a dangerous poison when too freely and too long inhaled: "A druggist's maid servant was found one morning dead in bed, and death had evidently arisen from the air of her apartment having been accidentally loaded with vapor of nitric ether, from the breaking of a three gallon jar of the Spiritus Æth. Nitric. She was found lying on her side, with her arms folded across her chest, the countenance and posture composed, and the whole appearance like a person in a deep sleep. The stomach was red internally and the lungs

were gorged." The editor of the journal where this case is related, says he is acquainted with a similar instance, where a young man was found completely insensible from breathing air loaded with *sulphuric ether*, remained epileptic for some hours, and would undoubtedly have perished had he not been discovered and removed in time. Ether is now very commonly administered internally as a diffusible stimulant and antispasmodic, in a dose of one or two drachms. But here also we have the evidence of a few experiments that ether is capable of producing grave results under certain circumstances. Orfila killed a dog by confining a small quantity in the stomach by means of a ligature around the œsophagus. Jager found that ʒ ss. acted as a fatal poison on a crane. It was for a long time supposed to be injurious to the animal economy. The old Edinburg Dispensatory, republished here in 1816, explicitly states that it is to be inhaled by holding in the mouth a piece of sugar containing a few drops, and also that regular practitioners give only a few drops for a dose; "though," it adds, "empirics have sometimes ventured upon much larger quantities, and with incredible benefit." p. 566. Nevertheless, it was known to have been taken in correspondingly large doses with impunity. The chemist Bucquet, who died of scirrhus of the colon, with inflammation of the stomach and intestines, took before his death a pint of ether daily, to alleviate his excruciating pains, (he also took 100 gr. opium daily;) and Christison mentions an old gentleman who consumed for many years ʒ xvi. every eight or ten days. Such facts probably led Merat and De Lens, in their Matiere Medicale, to question its grave effects when swallowed. Mentioning the case of Bucquet, they say, even of its inhalation, that it produces only "un sentiment de frachieur que suit bientôt une legère excitation."

This variety of evidence tends to show that the knowledge of its effects, especially those of its inhalation, was of uncertain character. Anthony Todd Thompson well sums up what I conceive to have been the state of knowledge at the time upon this subject, in his London Dispensatory of 1818. "As an antispasmodic, it relieves the paroxysm of spasmodic asthma, whether it be taken into the stomach, or its vapor only be inhaled into the lungs. Much caution, however, is required in inhaling the vapor of ether, as the imprudent inspiration of it has produced lethargic and apoplectic symptoms." In his Materia Medica and Therapeutics, of 1832, however, omitting all mention of inhalation, he uses the following words: "Like other diffusible excitants, its effects are rapidly propa

gated over the system, and soon dissipated. From its volatile nature its exciting influence is probably augmented; as it produces distension of the stomach and bowels, and is thus applied to every portion of their sensitive surface. It is also probable that it is absorbed in its state of vapor, and is therefore directly applied to the nervous centres. It is the diffusible nature of the stimulus of ether which renders it so well adapted for causing sudden excitement, and producing immediate results. Its effects, however, so soon disappear, that the dose requires to be frequently repeated."

Nothing is here said of inhalation, and we may fairly infer that the process had so fallen into disrepute, or was deemed to be attended with such danger, as to render a notice of it superfluous in a work treating, in 1832, of therapeutics.

It remains briefly to describe the process of inhalation by the new method, and to state some of its effects. A small two-necked glass globe contains the prepared vapor, together with sponges to enlarge the evaporating surface. One aperture admits the air to the interior of the globe, whence, charged with vapor, it is drawn through the second into the lungs. The inspired air thus passes through the bottle, but the expiration is diverted by a valve in the mouth piece, and escaping into the apartment is thus prevented from visiting the medicated vapor. A few of the operations in dentistry, in which the preparation has as yet been chiefly applied, have come under my observation. The remarks of the patients will convey an idea of their sensations.

A boy of sixteen, of medium stature and strength, was seated in the chair. The first few inhalations occasioned a quick cough, which afterwards subsided; at the end of eight minutes the head fell back, and the arms dropped, but owing to some resistance in opening the mouth, the tooth could not be reached before he awoke. He again inhaled for two minutes, and slept three minutes, during which time the tooth, an inferior molar, was extracted. At the moment of extraction the features assumed an expression of pain, and the hand was raised. Upon coming to himself he said he had had a first-rate dream—very quiet," he said, "and had dreamed of Napoleon—had not the slightest consciousness of pain—the time had seemed long;" and he left the chair, feeling no uneasiness of any kind, and evidently in a high state of admiration. The pupils were dilated during the state of unconsciousness, and the pulse rose from 130 to 142.

A girl of 16 immediately occupied the chair. After coughing a little, she inhaled during three minutes, and fell asleep,

when a molar tooth was extracted, after which she continued to slumber tranquilly during three minutes more. At the moment when force was applied she flinched and frowned, raising her hand to her mouth, but said she had been dreaming a pleasant dream, and knew nothing of the operation.

A stout boy of 12, at the first inspiration coughed considerably, and required a good deal of encouragement to induce him to go on. At the end of three minutes from the first fair inhalation, the muscles were relaxed and the pupil dilated. During the attempt to force open the mouth he recovered his conciousness, and again inhaled during two minutes, and in the ensuing one minute two teeth were extracted, the patient seeming somewhat conscious, but upon actually awaking he declared "it was the best fun he ever saw," avowed his intention to come there again, and insisted upon having another tooth extracted upon the spot. A splinter which had been left, afforded an opportunity of complying with his wish, but the pain proved to be considerable. Pulse at first 110, during sleep 96, afterwards 144; pupils dilated.

The next patient was a healthy-looking, middle-aged woman, who inhaled the vapor for four minutes; in the course of the next two minutes a back tooth was extracted, and the patient continued smiling in her sleep for three minutes more. Pulse 120, not affected at the moment of the operation, but smaller during sleep. Upon coming to herself, she exclaimed that "it was beautiful—she dreamed of being at home—it seemed as if she had been gone a month," These cases, which occurred successively in about an hour, at the room of Dr. Morton, are fair examples of the average results produced by the inhalation of the vapor, and will convey an idea of the feelings and expressions of many of the patients subjected to the process. Dr. Morton states that in upwards of two hundred patients, similar effects have been produced. The inhalation, after the first irritation has subsided, is easy, and produces complete unconsciousness at the expiration of a period varying from two to five or six, sometimes eight minutes; its duration varying from two to five minutes, during which the patient is completely insensible to the ordinary tests of pain. The pupils of the cases I have observed have been generally dilated; but with allowance for excitement and other disturbing influences, the pulse is not affected, at least in frequency; the patient remains in a calm and tranquil slumber, and wakes with a pleasurable feeling. The manifestation of consciousness or resistance I at first ascribed to the reflex function, but I have since had cause to modify this view.

It is natural to enquire whether no accidents have attended the employment of a method so wide in its application, and so striking in its results. I have been unable to learn that any serious consequences have ensued. One or two robust patients have failed to be affected. I may mention as an early and unsuccessful case, its administration in an operation performed by Dr. Hayward, where an elderly woman was made to inhale the vapor for at least half an hour without effect. Though I was unable at the time to detect any imperfection in the process, I am inclined to believe that such existed. One woman became excited, and required to be confined to the chair. As this occurred to the same patient twice, and in no other case as far as I have been able to learn, it was evidently owing to a peculiar susceptibility. Very young subjects are affected with nausea and vomiting, and for this reason Dr. M. has refused to administer it to children. Finally, in a few cases, the patient has continued to sleep tranquilly for eight or ten minutes, and once, after a protracted inhalation, for the period of an hour.

The following case, which occurred a few days since, will illustrate the probable character of future accidents. A young man was made to inhale the vapor, while an operation of limited extent, but somewhat protracted duration, was performed by Dr. Dix upon the tissues near the eye. After a good deal of coughing the patient succeeded in inhaling the vapor, and fell asleep at the end of about ten minutes. During the succeeding two minutes the first incision was made, and the patient awoke, but unconscious of pain. Desiring to be again inebriated, the tube was placed in his mouth and retained there about twenty-five minutes, the patient being apparently half affected, but, as he subsequently stated, unconscious. Respiration was performed partly through the tube, and partly with the mouth open. Thirty-five minutes had now elapsed, when I found the pulse suddenly diminishing in force, so much so that I suggested the propriety of desisting. The pulse continued decreasing in force, and from 120 had fallen to 96. The respiration was very slow, the hands cold, and the patient insensible. Attention was now of course directed to the return of respiration and circulation. Cold affusions as directed for poisoning with alcohol, were applied to the head, the ears were syringed, and ammonia presented to the nostrils and administered internally. For fifteen minutes the symptoms remained stationary, when it was proposed to use active exercise, as in case of narcotism from opium. Being lifted to his feet, the patient soon made an effort to move his

limbs, and the pulse became more full, but again decreased in the sitting posture, and it was only after being compelled to walk during half an hour that the patient was able to lift his head. Complete consciousness returned only at the expiration of an hour. In this case the blood was flowing from the head, and rendered additional loss of blood unnecessary. Indeed the probable hemorrhage was previously relied on as salutary in its tendency.

Two recent cases serve to confirm, and one, I think, to decide the great utility of this process. On Saturday, the 7th Nov., at the Mass. General Hospital, the right leg of a young girl was amputated above the knee, by Dr. Hayward, for disease of this joint. Being made to inhale the preparation, after protesting her inability to do so from the pungency of the vapor, she became insensible in about five minutes. The last circumstance she was able to recall was the adjustment of the mouth-piece of the apparatus, after which she was unconscious until she heard some remark at the time of securing the vessels—one of the last steps of the operation. Of the incision she knew nothing, and was unable to say, upon my asking her, whether or not the limb had been removed. She refused to answer several questions during the operation, and was evidently completely insensible to pain or other external influences. This operation was followed by another, consisting of the removal of a part of the lower jaw, by Dr. Warren. The patient was insensible to the pain of the first incision, though she recovered her consciousness in the course of a few minutes.

The character of the lethargic state, which follows this inhalation, is peculiar. The patient loses his individuality and awakes after a certain period, either entirely unconscious of what has taken place, or retaining only a faint recollection of it. Severe pain is sometimes remembered as being of a dull character; sometimes the operation is supposed by the patient to be performed on somebody else. Certain patients, whose teeth have been extracted, remember the application of the extracting instruments; yet none have been conscious of any real pain.

As before remarked, the phenomena of the lethargic state are not such as to lead the observer to infer this insensibility. Almost all patients under the dentist's hands scowl or frown; some raise the hand. The patient whose leg was amputated, uttered a cry when the sciatic nerve was divided. Many patients open the mouth, or raise themselves in the chair, upon being directed to do so. Others manifest the activity of cer-

tain intellectual faculties. An Irishman objected to the pain, that he had been promised an exemption from it. A young man taking his seat in the chair and inhaling a short time, rejected the globe, and taking from his pockets a pencil and card, wrote and added figures. Dr. M. supposing him to be affected, asked him if he would now submit to the operation, to which the young man willingly assented. A tooth was accordingly extracted, and the patient soon after recovered his senses. In none of these cases had the patients any knowledge of what had been done during their sleep.

I am, as yet, unable to generalize certain other symptoms to which I have directed attention. The pulse has been, as far as my observation extends, unaltered in frequency, though somewhat diminished in volume, but the excitement preceding an operation, has, in almost every instance, so accelerated the pulse that it has continued rapid for a length of time. The pupils are in a majority of cases dilated; yet they are in certain cases unaltered, as in the above case of amputation.

The duration of the insensibility is another important element in the process. When the apparatus is withdrawn at the moment of unconsciousness, it continues, upon the average, two or three minutes, and the patient then recovers completely or incompletely, without subsequent ill effects. In this sudden cessation of the symptoms, this vapor in the air tubes differs in its effects from the narcotics or stimulants in the stomach, and, as far as the evidence of a few experiments of Dr. Morton goes, from the ethereal solution of opium when breathed. Lassitude, headache and other symptoms lasted for several hours, when this agent was employed.

But if the respiration of the vapor be prolonged much beyond the first period, the symptoms are more permanent in their character. In one of the first cases, that of the young boy, the inhalation was continued during the greater part of ten minutes, and the subsequent narcotism and drowsiness lasted more than an hour. In a case alluded to before, the narcotism was complete; during more than twenty minutes, the insensibility approached to coma.

Such cases resemble those before quoted from Christison and other authors, and show that the cessation of the inhalation, after it has been prolonged for a length of time, does not produce a corresponding cessation of the symptoms; while, if the inhalation is brief, the insensibility ceases in a short time. Recovery, in the latter case, is not improbably due to the complete and rapid elimination of the vapor from the lungs; the

more gradual return of consciousness, in the former case, to the presence of a larger quantity of unexhaled particles. A fact mentioned by Christison bears upon this point. This author states that insensibility from the presence of a large quantity of alcohol in the stomach, often gives place to a complete and sudden return of consciousness, when the alcohol is removed by the stomach pump. It is probable that the vapor of the new preparation ceases early to act upon the system, from the facility with which it is exhaled.

The process is obviously adapted to operations which are brief in their duration, whatever be their severity. Of these, the two most striking are, perhaps, amputations and extraction of teeth. In protracted dissections, the pain of the first incision alone is of sufficient importance to induce its use; and it may hereafter prove safe to administer it for a length of time, and to produce a narcotism of an hour's duration. It is not unlikely to be applicable in cases requiring a suspension of muscular action; such as the reduction of dislocations or of strangulated hernia: and finally it may be employed in the alleviation of functional pain, of muscular spasm, as in cramp and colic, and as a sedative or narcotic.

The application of the process to the performance of surgical operations, is, it will be conceded, new. If it can be shown to have been occasionally resorted to before, it was only an ignorance of its universal application and immense practical utility that prevented such isolated facts from being generalized.—*Boston Med. Jour.*

Case af Concealed Delivery. By S. C. Sewell, M. D.—On the 16th of November, 1845, at a quarter past 1, P. M., I was called to Mr. K.'s to see his servant Bridget Cloone, æt. 40, who was said to be suffering from colic and pain in the back. Laying my hand on the abdomen, I perceived that she was about seven or eight months pregnant. On my charging her with the fact, she denied it stoutly, said she had menstruated two months before, and finally, finding that she made no impression on my opinion, she declared, in the most solemn manner, "that whatever was inside of her, it was no child." The reason for this statement will appear presently. I had her removvd to the University Lying-in Hospital, whither I

went in an hour after, and finding that the physician in ordinary had not arrived, at the matron's request I examined her *per vaginam*, and found the os uteri dilated and the membranes protruding; presently I detected what appeared to be a cord lying coiled in the upper part of the vagina, and on pulling at it a free extremity came down, but not the os externum. There were no clots of blood in the vagina. At half past five I returned, and found Dr. McCulloch in attendance; the child just being born by the feet, and the woman still persisting that there was no child. The child was feeble, but not at all exsanguined. It survived a few hours. To the placenta were attached two cords; that of the first child had evidently been divided with scissors, from the appearance of the cut surface. Information was given at the police office, that a new-born child had been concealed, for the woman denied that any previous birth had taken place. On searching the bed-room she had occupied at her master's house, the bed bore evident marks of a delivery having taken place, and on searching her trunk the body of a male child was found, underneath the clothes, which had been very carefully smoothed over it. Care was taken not to disturb the position of the limbs, and the body was removed to the Police Station House.

An inquest was held on the following day, when Dr. McCulloch and I were directed to perform the autopsy, of which the following is the result:—The body was fifteen inches long, and weighed two pounds fifteen ounces avoirdupois. The body was not exsanguined; there was no fracture of the skull; the conjunctiva was intensely injected; the cornea hazy and pupil open.

The body was found on its right side in the box, and was deposited on the same side in the station house; in consequence, livid patches were observed on that side from the gravitation of the blood.

External Examination.—Several marks of injury were found as follows:—One from the right nipple to the point of the shoulder, half an inch broad; one from the right side of the hyoid bone to mastoid process of right temporal bone; one a little lower, and to the outside, which terminated at the back of the neck; the fourth commencing to the outside again, went to the middle of the superior costa of the scapula; the hands were turned up to the head, the right one to the right ear. The nails were formed. The umbilical cord had been divided nine inches from the body, evidently with scissors, and there was no ligature on it. Meconium was protruding

from the anus; the testicles had descended; the thighs were flexed on the abdomen, and the legs on the thighs.

Internal Examination.—The marks of injury before referred to were cut into, and the cellular tissue underneath was found to be red with extravasated blood. An incision was made through the lower lip, and down to the epigastrium, in the mesial line. On dividing the lower lip, the tongue was found protruded more than a line beyond the gums. On opening the thorax, the following observations were made:—The apex of the diaphragm was opposite the fifth rib; the lateral portions were well descended; the lungs were of a uniform bright scarlet color, occupying the lateral portions of the thorax, and touching the diaphragm below, but not filling the pleural cavities entirely. The heart and great vessels were nearly in the mesial line, and the cavity of the entire thorax was large for the size of the child; the lungs crepitated on pressure; the lungs, heart, and thymus gland were then removed, and, on being put into water, floated; crepitation occurred under the scalpel; a portion of the lung was squeezed under water, and bubbles issued from every part of the cut surface; the same was observed on squeezing a portion in air; nearly half of each lung was removed, and the remainder with the heart and thymus still attached, was cast into water, when the mass again floated; portions of the lung floated in water, the cavities of the heart contained dark blood, slightly coagulated; foramen ovale was closed, but not obliterated.

Inferences.—1st. The child had breathed freely.

2d. The marks of injury on the right breast and neck were inflicted during life.

3d. They were in all probability occasioned by the left hand of an adult grasping the neck of the infant.

4th. The protrusion of the tongue, and position of the hands, are, probably, referable to strangulation.

5th. Death was not caused by hemorrhage from the cord.

6th, The child was between seven and eight months of utero-gestation,

The rest of the evidence went to show that Bridget Cloone had been a widow for some years; that she had carefully concealed her pregnancy; that she had taken powerful emmenagogue medicines, prescribed by an irregular practitioner, up to the day of delivery, and that she was seen, half an hour before my arrival, to get out of bed, stand by its side, take a pair of scissors from under the pillow, and cut something under the bedclothes.

The coroner's jury brought in a verdict of "wilful mur-

der." The bill of indictment founded thereon was thrown out by the Grand Jury. She was then indicted for concealing the birth of an illegitimate child, convicted, and sentenced to six month's imprisonment.

The above is an exceedingly important case in the annals of medical jurisprudence; and cases of the kind are very rare. Under the hope of escaping from the consequences incident to an actual infanticide, of which there is the strongest probability, this woman persisted *to the last that she was not pregnant*, little anticipating that a second child was to furnish its quota of evidence of the birth of a former one a few hours previously. The case furnishes a striking proof of the fact, that a woman may be delivered of one child, of which she may criminally dispose, for the purpose of concealing its birth, and may afterwards be delivered of a second, the life of which may be preserved.—*British Am. Jour. Med.*

Treatment of Varicose Veins. By F. C. Skey, Esq., F. R. S.—Mr. Skey observes that, the practice that he recommends in cases of varicose veins, has been successful in his hands for many years; it consists in the entire obliteration of the trunks and many of the branches of the saphena veins, both major and minor, by very small caustic issues, applied on the projecting veins, however large or numerous they may be; and in suggesting which, I believe I can pledge myself to two conditions; first, that the function of the vein on which the issue is made, is from that hour suspended; and second, that the operation of the issue so applied is unattended with danger of any kind. The operation appears to be complete, and immediate. The current of blood is arrested; nor is the obstruction to the circulation thus caused, apparent in any symptom of congestion resulting from it.

The material I employ for this purpose, is the Vienna paste, a compound of quick lime and caustic potash, in the proportion of five of the former to four of the latter. These ingredients are mixed into a paste with spirits of wine; and in these proportions which I cannot pronounce to be strictly those of the "Pate de Vienne," a caustic may be applied, which will readily destroy the surface without causing the excessive pain attending the application of the pure potash

alone, nitric acid, or other similar agents. Under some circumstances it may be desirable to diminish the proportion of the caustic. The limb should be examined in the upright position of the body; the projecting veins marked with ink to the number requisite, including all the most salient points in the trunk and branches.

While in the horizontal posture the places thus marked, should be insulated with a circle of plaster of three or four thicknesses, the diameter of which will vary with that of the swelling beneath, but it is very desirable on all accounts to make it as small as possible. I have found one-quarter to one-third of an inch to suffice in the plaster, and the issue itself, will not exceed the size of a fourpenny piece or less.

The caustic may be removed at the expiration of half an hour, and the leg dressed and rolled lightly. In the course of a week or ten days the eschars come away, and the wounds are healed by ordinary means.—*London Med. Gaz.—South. Jour. Med.*

On the Ectrotic or Abortive Treatment of Gonorrhœa.—The employment of nitrate of silver in the early stages of gonorrhœa will, I also believe, prove highly serviceable, due regard being paid to the selection of cases in which trial of it is to be made. I have observed its operation on four occasions of distinct and undoubted clap, upon all of which the success attending its use was perfect. One of these was a first attack, open to objection on the ground of error in diagnosis, but so well marked in circumstantial evidence, as well as symptoms, as scarcely to be mistaken; two others were second attacks, thus less liable to fallacy; and the remaining one a fifth attack, in which, (to use the expressive language of the patient himself, "an old stager," in allusion to the existing ardor urinæ) "the red hot fish hooks were come." Nevertheless the complaint was as satisfactorily arrested in the last as in any of the previous cases, by the use of one injection only, although the patient admitted, that in no former attack, had the disease lasted upon him less than three months, notwithstanding the most assiduous attention to all the directions of a skilful medical man.

The mode of employing the remedy is simple. An injection composed of twelve grains of the salt to the ounce of

water, is the proper strength to use. About a couple of drachms of this, by means of an ivory (or, for obvious chemical reasons, what is better, a glass) syringe, is to be thrown into the urethra, the penis being at the same time elevated and compressed at about two inches from the orifice, thus ensuring complete application of the solution to the urethral membrane within this range, and no further. The nozzle of the syringe being withdrawn, the orifice of the urethra is to be occluded, and the solution kept in contact with the mucous membrane for the space of not less than half a minute. No urine is to be passed for half an hour after the injection, and the penis is to be kept suspended. The immediate visible effect of the remedy is to form a coagulated film on the surface of the urethral lining; and this, undoubtedly, is a main agent in effecting the cure, by the protection it affords to the delicate and abnormally sensitive membrane during urinary evacuation. That it has this effect is evinced by the great diminution of pain which the patient at once experiences during micturition. But as to its *modus operandi*, we have also to consider its sedative action in subduing crescent inflammation, and its probable quality in neutralizing specific virus, and arresting zymotic increase.

The observance of rest and antiphlogistic regimen would, in all probability, aid the therapeutic influence of this mode of treatment; its beneficial effect is, however, developed under an ordinary mode of life, when attended with no flagrant violation of conduct.

As a method of cure, it is in my opinion open to but one objection, namely, its limited adoption, owing to its applicability extending no further than the early stages of the disease, and these often exciting but little attention. Let it not, however, be disregarded on this account; for, undeniably, many cases of clap present themselves while within the power of the remedy; and for these let it be reserved and had recourse to as a means easy of application and effectual in operation; while those cases beyond its influence may, as heretofore, be set aside, to be dealt with after another more expedient mode.

Failing, however, in ectrosis, the case is in a position no more unfavorable than if its cure had not been attempted; the ulterior effects and complications of the disease are likely to be in no degree more imminent or grave.—*London Lancet.*

STATISTICS.

Deaths in Charleston during the Months of July and August, 1846.

July.—Deaths 50. (Adults, 24; children 26.) By cancer, 1; cholera infantum, 1; consumption, 6; convulsions, 3; croup, 1; debility, 1; diarrhœa, 7; dropsy, 3; dropsy of chest, 1; drowned, 3; dysentery, 1; fever catarrhal, 1; fever congestive, 1; fever country, 1; fever scarlet, 1; hypertrophy of the heart, 1; intemperance, 1; old age, 3; pneumonia, 1; teething, 8; trismus nascentium, 2; ulceration of pylorus, 1; unknown, 1.

August.—Deaths 56. (Adults, 30; children, 26.) By bronchitis, 1; cerebritis, 1; cholera infantum, 3; consumption, 8; convulsions, 4; croup, 1; debility, 2; diarrhœa, 3; dropsy, 4; fever country, 1; fever scarlet, 2; fever typhus, 1; gangrene, 1; gastritis, 1; hemorrhage, 1; hepatitis, 1; hooping cough, 1; hydrocephalus, 1; marasmus, 1; old age, 6; sore throat, 1; teething, 5; tetanus, 2; trismus nascentium, 2; unknown, 2.

Statistics of the Losses Armies Sustain.

(Dub. Quart. Journ., August, 1846, p. 164.)—Among the 80,000 men forming the French army in Algeria, in 1842, the deaths were 69 in 1,000 effective men; and 60, in 1843.

In	1840	there	was	1	death	in 6 patients.
"	1841	"	"	1	"	" 9 "
"	1842	"	"	1	"	13 "
"	1843	"	"	1	"	23 "
"	1844	"	"	1	"	32 "

This shows that a marked improvement in the sanitory condition of the French colony has taken place.

Comparison between Deaths by Disease and in Battle.

The French army destined for Egypt, from the time of its departure from France, to the end of the year 1804, lost as follows:

Killed in battle,	3614	Killed by accidents,	290
Died from wounds,	854	Died from disease,	4,157
		Total,	8,915

In the French expedition to the Morea, among 17,000men, during seven months, from 1st Sept. 1828, to 1st April 1829.

840 men died by disease alone, which would give an annual proportion of 84.6 in 1,000.

In the official documents of the British army, published by the Inspector General H. Marshall. the losses of the British army in Spain, for a period of 41 months, from January 1811 to May 1814, in a force of 61,511, were 24,930 deaths by disease, and 8,889 in battle, being for the former 118.6 in 1,000, and for the latter 42.4. Soldiers absent from their corps on account of disease 225 in 1,000, reducing the army to one-fourth of its effective strength; 66 officers were killed in every 1,000 in battle, and 37 died by disease.

In the four battles of Talavera, Salamanca, Vittoria and Waterloo, there were 39 officers killed in each 1,000, and of soldiers and non-commissioned officers 31.1, in the same number. In the British navy from June 1780 to April 1783, the deaths from various diseases were 3,230; killed, 640; and died of wounds, 500. Thus showing, that in the navy as well as in the army, the deaths by *disease* greatly exceed those by *warfare.*

Midwifery Statistics.

(Lond. Lancet, Aug. 1846, p. 191.)—A reviewer in the March number of the Archives Generales, gives the following general results of midwifery statistical tables recently published in the Italian and English Journals. In 47,116 labors, twins occurred 446 times (9 4-10 per thousand) and triplets four times (1 in 10,000.) There were 40,233 head presentations, (969 per thousand) of which 40.046 were vertex, and 187 face. There were 1,065 breech or footing presentations, (27 per thousand) and 154 transverse ones (4 per thousand)—of these labors 46,632 terminated naturally (989 per thousand) and 484 (11 per thousand) artificially, viz: 221 by means of forceps; 89 by craniotomy; 54 by turning, and 20 by vaginal or uterine hysteriotomy.—*South Med. Jour.*

Two Cases of Double Vagina. By Professor Meigs.—On the — October, 1846, I was called to Mrs. ———, aged 20 years, in labor of her first child. She is a remarkably well formed and comely wowan.

The pains were sharp and frequent, evidently of the kind

called dolores præparantes, or grinding pains. After some time, as they had become more violent, I examined the state of the os uteri, which was of the size of a half-dollar, the head of the child presenting, and the ovum unruptured. In the course of an hour more, I examined again, and the os uteri was then nearly dilated. While pressing the palp of my index finger to the left side of the pelvis, it caught in a seeming bridle, which at the instant made me fear the cervix uteri had been broken, so as to detach a semi-circular portion of the os uteri, for the pains had been exceeding sharp, and their returns had been announced by violent cries. It was but a moment that I indulged the idea of a rupture of the cervix, for upon pushing the index farther, and flexing the finger, I found I could draw the point of it outwards, pulling along with it the bridle in question. Still I did not understand the case until, having withdrawn the indicator, I examined with it the structure of the external parts, and then learned that the lady was possessed of a double vagina. Supposing that such a revelation would not be agreeable to her, I kept my own counsel, hoping that the child's head would come down through the right or the left channel without injuring the septum. But after the head escaped from the circle of the os uteri, the bridle or partition would not go definitely to the right or to the left, although I thrust it first one way and then the other. The tie was so strong that the fleshy septum extending from the anterior to the posterior columna of the vagina would not admit of the dilatation of the lower or outer third of the tube. And as the lady was very strong, and had powerful uterine pains, I began to perceive some danger of the vagina being ruptured by the vain efforts for expulsion.

I now explained to the monthly nurse, and to a relative of my patient, the cause of the delay, and the necessity that had arisen. I therefore procured the requisite permission to expose the parts to an inspection. Upon this, the two orifices of the vagina were seen to be exactly alike, and the partition stretched across the head from front to rear of the passage, which by it was wholly prevented from dilating.

I now, with a strong scissors, divided the wall by a single stroke of the instrument, whereupon the child's head advanced, dilated the os magnum, and was speedily delivered with safety to both the mother and her infant. She never complained afterwards relative to the operation, and within a month I met her on foot in the streets.

A week later I was called to a lady in her 30th year, in labor of her first child. Upon examining the state of the os

uteri, I found the circle not much bigger than a quarter dollar, with thin margin, and within it the penis of the child; the scrotum being detected within the os uteri after the pain ceased. As it was night, I went to another apartment and slept an hour, when being called, I found the os uteri very much dilated, and a buttock, near which was the right foot, presenting

While inquiring into the state of the cervix, I hooked my finger into a bridle, just as I had done in the case above mentioned, and I confess that the same thought was obvious to me, viz: that she had broken off a half ring of the circle of the os uteri, but I immediately afterwards discovered that I had another case of double vagina under management. In this case the partition was very firm and thick, extending from the os magnum almost up to the os tincæ. I inspected the external structures, and the two vaginas were each perfect and alike, included within labia pudendi common to both.

I was glad to find that only one foot of the child would come down, being fearful that if both should descend, I might not readily prevent one from entering the right and the other the left vagina.

I now disengaged the right foot and brought it down the right channel, the left leg was flexed upon the belly and thorax of the fœtus. With a little assistance the foot was delivered and the buttock of the child coming downwards, thrust the vaginal wall to the left, and so the trunk was delivered. I had great difficulty to extricate the head of the child, which remained long in the vagina; the infant breathing from time to time the air that I admitted through the hollow of my hand and fingers to its mouth and nostrils. The child, a male, was alive and in good health; the mother is quite well recovered.

Some years ago I was called by the late venerable Dr. Ruan to consultation upon a case of double vagina in a primiparous woman. I delivered the child, with the forceps, through the right canal, without difficulty or any injury, and had some five weeks later an inspection of the parts, which, as I remember, were very similar to those described in my second case above.—*Med. Examiner.*

Alleged Cure for Croup.—In the American Water-Cure Advocate, a leading column is headed thus:—"Important Dis-

called dolores præparantes, or grinding pains. After some time, as they had become more violent, I examined the state of the os uteri, which was of the size of a half-dollar, the head of the child presenting, and the ovum unruptured. In the course of an hour more, I examined again, and the os uteri was then nearly dilated. While pressing the palp of my index finger to the left side of the pelvis, it caught in a seeming bridle, which at the instant made me fear the cervix uteri had been broken, so as to detach a semi-circular portion of the os uteri, for the pains had been exceeding sharp, and their returns had been announced by violent cries. It was but a moment that I indulged the idea of a rupture of the cervix, for upon pushing the index farther, and flexing the finger, I found I could draw the point of it outwards, pulling along with it the bridle in question. Still I did not understand the case until, having withdrawn the indicator, I examined with it the structure of the external parts, and then learned that the lady was possessed of a double vagina. Supposing that such a revelation would not be agreeable to her, I kept my own counsel, hoping that the child's head would come down through the right or the left channel without injuring the septum. But after the head escaped from the circle of the os uteri, the bridle or partition would not go definitely to the right or to the left, although I thrust it first one way and then the other. The tie was so strong that the fleshy septum extending from the anterior to the posterior columna of the vagina would not admit of the dilatation of the lower or outer third of the tube. And as the lady was very strong, and had powerful uterine pains, I began to perceive some danger of the vagina being ruptured by the vain efforts for expulsion.

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Alleged Cure for Croup.—In the American Water-Cure Advocate, a leading column is headed thus:—"Important Dis-

covery to Parents."—which goes on to relate that Dr. Wigand, of Boston, has published a work, in which a discovery is announced that he cures the croup by cold water, exclusively. After a patient examination of the printed catalogue of Boston Physicians, and the Directory for 1846, the name of Wigand has not been found. Yet this name is passed round the ring in the country, for authority in a particular line of practice. If a book has actually been written by this celebrated croup curer, it has made no sensation here, however much it may have moved the waters in Ohio. The locality of the author may be in the neighborhood, perhaps, of the *Mesmeric College*, that was gravely asserted, last season, by distant newspapers, to have been organized in *Billerica street!* of which the wonderful and very surprising Dr. Dodd was both president and professor. This same Water-Cure Advocate speaks in raptures of the Green Mountain Spring, by D. Mack, as an ably conducted journal—which is certainly a discovery, since he is the only person who can speak thus and keep his countenance.—*Boston Med. and Surg. Jour.*

Combination of Carbonate of Iron with Sulphate of Quinine in Remittent Fever.—Prof. Lippich, of Padua, recommends the addition of the carbonate of iron to the sulphate of quinine in the treatment of periodical fevers. The following is his formula: ℞. Carbonate of iron, one gramme; sulphate of quinine, one gramme; extract of taraxacum, q. s. To be made into a mass of proper consistency, and divided into thirty pills, two of which are to be taken every two hours. The carbonate of iron may be gradually increased to two grammes.—*Ibid.*

Medical Students in France and the United States.—In the United States, with a population of 20,000,000 of people, there are about thirty medical schools, and an average annual number of 4,500 students, 1,300 of whom are yearly graduated. In France, with a population of 35,000,000, there are but three medical schools, which graduate only about 700 annually.—*Dr. Stillé's Address.*

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LOUISVILLE, JANUARY 1, 1847.

FOREIGN CORRESPONDENCE.

The following letter from our Foreign Correspondent ought to have reached us a fortnight before it came to hand, in which case it would have been appended to the one which appears in another part of this number. His descriptions of the eminent men of Paris will be read with interest. We have already received from him a letter of a more professional character, which will appear in our next number.

PARIS, Oct. 22d, 1846.

GENTLEMEN: In Paris there is at this time a young physician from Massachusetts, diligently engaged in the study of *Veterinary Surgery*, with reference to delivering lectures on that subject when he returns home. He has the appearance of being an intelligent, gentlemanly, studious young man, but I fear that he will not be rewarded for his labor. We are hardly yet sufficiently advanced in civilization to appreciate acquirements in that truly interesting branch of science. A "horse doctor" in the United States is one thing; a ve-

terinary surgeon in France is quite another thing. I do not pretend to affirm that our horse doctors are more ignorant and illiterate than the common tribe of empirics; but the Paris veterinary surgeon has a rank among scientific men, and his profession is esteemed a dignified and honorable one; nor can any one who regards the true position of the horse in the scale of being, and considers our dependence upon that noble animal wish to see it otherwise. The distinguished London surgeon, Mr. Liston, during a visit which he paid not long since to Paris, was more interested in the veterinary hospital and school than in the hospitals and schools for our own species. In a future communication I shall have something to say of this institution.

I have just had the pleasure of seeing the renowned astronomer, Le Verrier, who, as I mentioned in a former letter, is only thirty-one years of age. He is about the middle stature, with fair complexion, light hair, and a mild, benevolent expression of face bordering on tameness. He would strike four out of every five Americans as some country schoolmaster. You have already seen, no doubt, that a Mr. Adams, of Cambridge, England, disputes with Le Verrier the honor of the discovery which has so suddenly rendered him famous. The English astronomers are resolved that the new planet shall not be named after the French discoverer. To the world at large the naming of a star is a matter of small moment, and the animated controversy to which it has given rise, however exciting to astronomers, is dull enough to most readers. One of my friends here, who feels an intense concern as to who shall bear the palm, predicts that England is bound eventually to add this gem also to the diadem with which Newton and Herschel have encircled her brow.

M. Arago, so eminent as a mathematician, I have also seen at the Academy of Sciences. He is advancing in years, and his head is quite gray; his height is six feet two inches, and his appearance very fine. His features, which are strongly marked, are rather indicative of energy and force of character, than of that excelling intellect which has placed him foremost among the members of the French Academy. His eyebrows are absolutely immense, and hang like thunder clouds over his large mild eyes.

The name of Regnault is familiar to all who have watched the recent progress of physical science. He is, I presume, the youngest member of the Academy, and certainly is the most ordinary looking-

He is a small young man, of fair complexion and light hair, with nothing noticeable in his face, person or manner. The only thing with which you would be struck on learning that he was the acute and profound philosopher whose researches have already given him a name in all lands where science is cultivated, is the real "soap-lock" cut and length of his hair. When I looked at him and thought of his great attainments, I was forcibly reminded of the lines:

> " 'Tis not the front or visage of a man
> That marks his merit."

He read a long and elaborate paper to the Academy the evening I saw him, on the compressibility of elastic fluids, which was much complimented by the members, but upon me the greater portion of it was lost, owing to the rapidity with which he hurried through his essay. At a late meeting of the Academy of Sciences I saw the chemists Thenard and Chevreul, and had the satisfaction of hearing a paper read by the latter on *chemical reaction*. Chevreul is about five feet eleven inches high, fifty or fifty-five years of age, with long, uncombed gray hair, small head inclining to be pointed, prominent thin nose, and black, deeply sunken eyes, which are never at rest. In manner, while reading, he is earnest and rapid, sawing up and down from his table to the back of his chair, and gives one the idea of a restless, eccentric man. Thenard is large, between fifty and sixty years old, of florid complexion, large head, curly hair, small nose, wide face, black eyes, prominent cheek bones, and a stern expression of countenance. He sits with his chin upon his breast, apparently absorbed in thought, but when he rises to speak his manner is pleasing and impressive.

One of the greatest men, physically, with whom you will meet in Paris, and also a great man, intellectually, is Rayer, one of the physicians to La Charité, whose name is known to the profession in our country. He is an immense man, forty-five or fifty years old; two hundred and twenty pounds would hardly pull him down. He has a fine face, with black, excessively long hair, and straight as an Indian's, black eyes, and a mouth which, though small, is expressive of pride and determination.

Dr. Desmarres has a small private class, of which I am a member, to which he lectures on diseases of the eye, three months, and for this course receives from each pupil no more than ten francs. He

has in the press and will shortly publish a treatise on those diseases, of which I will avail myself of the earliest opportunity to give you some account, for, from my knowledge of the author, I am persuaded that it will be a work of merit. He is still a young man, of good size, and rather good appearance, notwithstanding a pug nose. His face is exceedingly animated and expressive while lecturing, and I regard him as one of the best teachers with whom I have met. With the patients before his class, his remarks, and the black-board, upon which he nearly every day makes drawings explanatory of his subjects, his course is very clear, interesting and valuable. He has five *cliniques* a week, of two hours' each; the number of patients daily present is from thirty-five to forty; his method of instruction is to assign, almost every day, a patient to each student who diagnosticates and prescribes; after which Desmarres corrects, if the prescription or diagnosis requires it, and concludes by making some remarks on the nature and treatment of the disease. After the student has made sufficient progress, he is entrusted with the knife in cases demanding an operation. To-day a case was submitted to me for diagnosis and prescription. In the first I was successful, but my treatment did not please the doctor, and so he ordered a different course. But "doctors," you know, "*will* differ." I cannot conceive of a better school for studying affections of the eye than the cliniques of Dr. Desmarres.

D. W. Y.

XYLOIDINE, OR GUN-COTTON.

This article is at present exciting the attention of the whole scientific world. As mentioned by our correspondent from Paris, it is prepared by subjecting cotton, for a short time, to the action of concentrated nitric acid. That prepared by distilling ten parts of dry nitrate of potash with six parts of sulphuric acid, and having the specific gravity of 1.4, is found to be the best; it is preferable to the strongest nitric acid, which has a specific gravity of 1.52. The cotton is to be steeped in this acid for two or three minutes, and afterwards washed in water until litmus is no longer reddened by the water. It may also be made by immersing cotton for two hours in a mixture of the nitric and sulphuric acids of commerce, but thus pre-

pared it is said to be more liable to spontaneous combustion than when made by the other process.

The gun-cotton burns suddenly with a bright yellow flame, kindling at a temperature of 420°, and may be ignited by the electricity of a Leyden jar, percussion on an anvil, or the ordinary methods of inflaming gunpowder. It is resolved entirely into nitrogen and carbonic acid gases, and consequently leaves no solid matter behind. The suddenness with which it is deflagrated is evinced by the circumstance, that it may be burnt upon gunpowder without kindling it, as is the case with hydrogen and the fulminating compounds of mercury and silver. Its expulsive force appears to be greater than that of gunpowder, but whether it will ever take the place of that agent must depend upon a variety of circumstances. Notwithstanding the simplicity of the process by which it is prepared, it is said that it will be more expensive than gunpowder. Another objection urged against it, we know not with what truth, is, that the chemical action does not cease with the drying of the cotton, but that changes continue to go on by which its quality is gradually impaired. It only explodes with force when perfectly dry, and as cotton attracts the moisture of the atmosphere with much energy, it is difficult to avoid some degree of humidity. It is also objected to it, that it sometimes inflames spontaneously in drying, and that, consequently, it would not be safe to keep a quantity of it together; that it is subject to being ignited by a heated gun, or by driving the ram rod home incautiously, and that it is more apt than gunpowder to burst the gun, owing to the suddenness of its explosion. Experience alone can determine the force of these objections, and fix the utility of the article.

Of Germany it has been sung:

> "Mars owes to thee his thunder
> That shakes the battle field;"

and to her discoveries of the clock, the printing press, and gunpowder, the world generally has consented to allow her to add that of gun-cotton; but from some recent notices on the subject we see that France is preferring a claim to the honor of the discovery. Pelouze, in some experiments with nitric acid on the woody fibre, performed several years ago, ascertained that the qualities of the substance, whether paper, linen, or saw dust, were materially altered. This new principle, termed *xyloidine*, (from *xulon* wood, and *eidos* like),

was found to burn rapidly, and often with explosive violence. The works of Turner and Graham on chemistry, published in 1842, allude to this effect of nitric acid on the ligneous fibre. Turner says, "In strong nitric acid saw dust dissolves; and on the addition of water, a white insoluble powder is deposited, which contains nitric acid, and explodes when heated." Graham is still more explicit in the subjoined extract:—"Nitric acid, in its highest state of concentration, exerts no violent action upon certain organic substances, such as lignin or woody fibre and starch, for a short time, but unites with them, and forms singular compounds. A proper acid for such experiments is procured with most certainty by distilling 100 parts of nitric acid with no more than 60 parts of the strongest oil of vitriol. If paper is soaked for one minute in such an acid, and afterwards washed with water, it is found to shrivel up a little, and become nearly as tough as parchment, and, when dried, to be remarkably inflammable, catching fire at so low a temperature as 356°, and burning without any nitrous odor, (Pelouze)." Am. Ed. p. 219.

Dumas, in his Traité de Chimie, mentions that these properties suggested to Pelouze the idea of employing paper or cloth, so treated, in the manufacture of cartridges for artillery; and he even went so far, at a late meeting of the Academy of Sciences, in Paris, as to assert that his countryman announced the plan of applying these substances to the very purpose for which Schönbein has taken out a patent. Whether or not the German chemist was acquainted with the researches of his neighbor, Pelouze, it appears clear to us, was the real inventor of the process for preparing the explosive cotton.

INTRODUCTORY LECTURES.

Our thirty medical schools are now in full oparation, and, probably, since the first of November, twice thirty introductory lectures have been published. We have received three of these annuals, which would do credit to any teachers in any medical school. The one which we received first, is from the pen of Professor Caldwell, who, at his advanced age, is toiling on in his profession with all the ardor and earnestness which characterized him when he came to Kentucky nearly thirty years ago. His lecture is divided between advice

to his pupils, and a eulogy on the Medical Institute. The former is seasonable and judicious, and the latter, we have no doubt, was sincere. If any of his readers should deem it overstrained, they must remember that the Medical Institute was the child of the author's old age. He had some cause to feel enthusiastic, in view of what that school was, and what he had done in rearing and sustaining it.

The other two lectures are from Philadelphia—one delivered by Professor Hodge, the other by Professor Jackson, of the University of Pennsylvania. Dr. Hodge discourses of obstetrics, the department assigned to him in the University. It is a very appropriate and a very instructive address.

Dr. Jackson's lecture is admirable in matter and manner; its sentiments are elevated, and they are conveyed in a style at once polished and forcible. He speaks of the dignity, aim, tendencies, and dangers of the medical profession, of which we may say, as good old Isaac Walton said of his favorite sport:

> Doubt not, scholar, but that angling is an art, and an art worth your learning; the question is rather whether you be capable of learning it? for angling is like poetry, men are to be born so: I mean with inclinations to it, though both may be heightened by discourse and practice; but he that hopes to be a good angler, must not only have an inquiring, searching, observing wit; but he must bring a large share of hope and patience, and a love and propensity to the art itself.

How the overflowing tide of quackery is to be resisted, Dr. Jackson indicates in the following paragraph:

> Amidst the general decadence that threatens the medical profession, and disrepute overshadowing medical honors, it will be incumbent on the schools of highest reputation, that they should maintain a firm ground. Let them urge on the cultivation of medicine to its highest point as a science, by full and adequate courses. Let them convince the students that it is not for their interests that medicine should be slightingly taught, light as a school boy's task, but must be labored out by application and hard study, through scientific and philosophical instruction. Let them stand firm to their diplomas, and refuse them to the incompetent, and when not fairly earned after a close scrutiny.

FACTS FROM CORRESPONDENTS.

TINCTURE OF MURIATE OF IRON IN GONNORRHŒA.

Dr. Osborne, of Erie, Alabama, informs us that he has continued to use the tincture of the muriate of iron beneficially in leucorrhœa, and that he has extended its application to some cases of gleet, and one of gonorrhœa, with success. The latter disease yielded to it almost immediately, as it is said to do to the nitrate of silver, the mode of applying which is noticed in another department of this number. Dr. Osborne uses the tincture of iron according to the following formula:

R. Tinct. mur. iron gtt. 10
Cold water ℥ ss.

Mix and inject with a syringe. In gonorrhœa he prescribes 15 drops of the tincture to the half ounce of water, to be employed as an injection three times daily.

TINCTURE OF IODINE IN DROPSY.

The same correspondent, in a letter dated 30th November, mentions a case of ascites, resulting from peritonitis, in which he employed the tincture of iodine successfully, after the ordinary remedies for dropsy had been tried in vain, and the disease had progressed so far as to render tapping necessary. He promises a full report of the case. He does not state how he used the iodine—externally, however, we presume.

FRACTURE OF THE SKULL; LOSS OF A PORTION OF THE BRAIN; RECOVERY.

The particulars of this interesting case have been communicated to us by Dr. Greenley, of Westpoint, Ky., but his letter reached us after the matter of this number was made up. It will appear in our February number.

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EDITORS.

—

DANIEL DRAKE, M.D.,

PROFESSOR OF PATHOLOGY AND THE PRACTICE OF MEDICINE IN THE MEDICAL INSTITUTE OF LOUISVILLE:

LUNSFORD P. YANDELL, M.D.,

PROFESSOR OF CHEMISTRY AND PHARMACY IN THE SAME:

THOMAS W. COLESCOTT, M.D.

CONTENTS

OF NO. II.

ORIGINAL COMMUNICATIONS.

ESSAYS AND CASES.

ART. I.—Notes on Medical Matters and Medical Men in Paris. By DAVID W. YANDELL, M. D., of Louisville, Ky. - - - - - - - - - - 93

ART. II.—A Case of Compound Fracture of the Skull; with depression of both tables, and laceration of the Membranes and Substance of the Brain. By T. B. GREENLEY, M.D., of Westpoint, Ky. - - - 113

ART. III.—Notes on Epidemic Scarlet Fever and Measles. By SILAS AMES, M.D., of Montgomery, Ala. - 118

ART. IV.—Remarks on the Pathology and Treatment of Fever. By JAMES C. HARRIS, M.D., of Wetumpka, Alabama. - - - - - - - - - 128

ART. V.—A Notice of the Grayson Springs. By LUNSFORD P. YANDELL, M.D. - - - - - - - 142

BIBLIOGRAPHICAL NOTICES.

ART. VI.—Thoughts on the Effects of Age on the Human Constitution. A Special Introductory. By CHAS. CALDWELL, M. D., &c. Lecture on Obstetrics and the Diseases of Women and Children. By G. S. BEDFORD, M.D., &c. - - - - - 144

SELECTIONS FROM AMERICAN AND FOREIGN JOURNALS.

Division of the Stricture in Hernia. - - - - - 153

On the Digestion of Alcoholic Liquids and their Operation in Nutrition; with Hygienic Applications. - - - 154

Alkalies in the Treatment of Hooping-Cough. - - - 155
Artificial Somnambulism in Pennsylvania. - - - 156
Obliteration of the Œsophagus. - - - - - 158
Method of Operating in Excision of the Cervix Uteri. - 160
Mortality from Cancer in England, as regulated by Sex. - 163
Electricity in Disease. - - - - - - - - 163
Advance of the Asiatic Cholera towards Europe. - - 166
Black Oxide of Mercury in the Vomiting of Pregnancy. - 167
Mortality in the Army and Navy. - - - - - 168
Operation for Aneurism. - - - - - - - 169
Hydrate of Lime in Diarrhœa. - - - - - - 170
Dr. Wollaston, the Chemist. - - - - - - 170
Ttreatment of White Swelling. - - - - - 172
Organic Chemistry and Medicine. - - - - - 173
Experimental Researches on the Nutritive Power of Green and Dry Fodder. - - - - - - - - 174
Notices of the Progress of Experiments on the Influence of Light on the Growth of Plants. - - - - - 175

ORIGINAL INTELLIGENCE.

Medical Department of the University of Louisville. - - 176
Other Western Schools. - - - - - - - - 178
Ohio Lunatic Asylum. - - - - - - - - 178
Professor Dickson's Introductory Lecture. - - - 181